

# BULLETIN OF ZOOLOGICAL NOMENCLATURE

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## CASE No. 26

DRAFT "RÈGLES": PROPOSED SCHEDULE GIVING GUIDANCE AS TO TRANSLITERATION OF WORDS FROM THE CYRILLIC ALPHABETS TO THE LATIN ALPHABET WHEN SUCH WORDS ARE USED AS ZOOLOGICAL NAMES

(Commission Reference : Z.N.(S.) 310)

### DOCUMENT 26/1

On the problems involved in giving effect to the decision by the Thirteenth International Congress of Zoology, Paris, 1948, for the addition to the "Règles" of a Schedule giving guidance as to the transliteration into the Latin alphabet of words normally written in Cyrillic characters when such words are used as zoological names

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

(Report dated 1st February 1958)

The purpose of the present Report is to give a brief account of the action which has been taken for the purpose of drawing up a scheme for the transliteration into the Latin alphabet of words normally written with Cyrillic characters, when such words are used as zoological names. The immediate purpose of drawing up such a scheme is to provide the material needed by the forthcoming Fifteenth International Congress of Zoology at its meeting to be held in London in July of this year when it comes to consider the measures needed to give effect to the decision by the Thirteenth International Congress at Paris in 1948 that a Schedule giving such guidance be added to the *Règles* (see 1950, *Bull. zool. Nomencl.* 4 : 229).

2. At a very early stage it became apparent that the difficulties involved in giving effect to the foregoing project were much more formidable than they had appeared in Paris in 1948. Of these the most intractable is that there is no general agreement of an international character as to the principles which should be followed in transliterating words from Cyrillic characters into the Latin alphabet. Not only is this so, but in addition there are two sharply differentiated schools of thought as to the manner in which Cyrillic characters having no counterpart in the Latin alphabet should be transliterated, the first of these schools considering that such characters can best be transliterated by adding diacritic marks to letters properly belonging to the Latin alphabet, the second holding on the contrary that the better way is to indicate such characters by combining two or more letters of the Latin alphabet. Thus, if a Schedule of the kind contemplated is to be added to the *Règles*, it will be necessary to make a choice as to which of the above approaches to the subject is to be preferred, a matter on which it is too much to hope that complete agreement will be easy to secure.

3. Second, the problem is considerably broader in scope than was realised in Paris, for we are here concerned not with the transliteration of words belonging to a single language using an alphabet very different in many ways from the Latin alphabet, but with the transliteration of words belonging to Slav languages using no less than five different alphabets, each written in Cyrillic characters. If a generally acceptable basis could be devised for transliterating the Cyrillic characters employed in the Russian language, the difficulties involved by the foregoing complication would no doubt be capable of solution. It would, however, be necessary to take account of the fact that in some cases a particular letter does not have the same meaning in all the Slav languages and that in some cases the same letter is pronounced differently in different Slav languages. Moreover, a comprehensive scheme covering the characters in all the Slav languages would substantially increase the number of Latin-alphabet equivalents which would need to be found, the total number required in that event being forty-eight.

4. The problem involved in the present case was given a new turn by the decision by the Fourteenth International Congress of Zoology, Copenhagen, 1953, to ban the use of diacritic marks over letters in words when used as zoological names and to require that, where on the first publication of a zoological name a diacritic mark was attached to one of the letters included in the word of which that name was composed, the diacritic mark in question was to be replaced by a combination of letters to be prescribed in a Schedule to be attached to the *Règles* (1953, *Copenhagen Decisions zool. Nomencl.* : 57-58, Decision 101). The immediate effect of this decision was, as will be appreciated, to rule out of court all those systems for transliterating Cyrillic characters which rely upon the use of diacritic marks (paragraph 2 above). Accordingly,

the only system of transliterating Cyrillic characters that would be consistent with the foregoing decision by the Copenhagen Congress would be one by which the Cyrillic characters not possessing equivalents in the Latin alphabet would be rendered by specified combinations of letters belonging to the Latin alphabet.

5. At this point the consideration of the complicated and highly technical problems involved was greatly assisted by the receipt from Drs. Alexey Almasov and Estaban Boltovskoy (*Buenos Aires, Argentina*) of a communication discussing the present problem and submitting provisional proposals for a unified scheme of transliteration. These correspondents were at that time unaware that the Copenhagen Congress had banned the use of diacritic marks for zoological names and on their being notified of this decision it was necessary for them to modify their scheme in respect of the one case where they had recommended the use of a diacritic mark over a letter of the Latin alphabet to denote a particular Cyrillic character. On receipt of the foregoing minor amendment it was decided to put forward the scheme submitted by Drs. Almasov and Boltovskoy as the basis for the discussion of the problems raised by the Paris decision of 1948. That Plan was accordingly published in the *Bulletin of Zoological Nomenclature* on 31st January 1955 (Almasov (A.) & Boltovskoy (E.), 1955, *Bull. zool. Nomencl.* 11 : 7-18, 2 figs.). This fundamental contribution to the consideration of the present subject is being reprinted for inclusion in the London Agenda Paper where it appears as Document 26/2.

6. The plan prepared by Drs. Almasov and Boltovskoy was preceded by a note prepared by myself as Secretary (Hemming, 1955, *Bull. zool. Nomencl.* 11 : 4-7) in which I appealed to specialists to furnish comments on the scheme thus thrown open for discussion. In view of the peculiar nature of the present problem, the interest of which extended far outside the field of zoological literature, it was decided that steps of an altogether exceptional character should be taken by means of direct approaches to seek the views not only of leading zoological institutions but also of institutions concerned with philology, of great libraries on whose work also the present problem impinges, and also of leading specialists likely to be interested. In pursuance of this decision four hundred copies of the Plan drawn up by Drs. Almasov and Boltovskoy were made available to the Office of the Commission by the International Trust for Zoological Nomenclature. Part of these supplies was distributed direct from the Office of the Commission, while the remainder was transmitted to the authors of the Plan, who made themselves responsible for the distribution of the copies so supplied to them. In view of the paramount interest of this question to institutions and specialists in the U.S.S.R. and other countries using Slav tongues, the list of institutions to be consulted in those countries was drawn up on an extremely comprehensive basis, the number of letters so issued amounting to between eighty and ninety. The text of the letter issued in these cases, together with particulars of the Institutions so consulted, is shown in the Appendix attached to the present Report.

7. When at the time of its publication in 1955 the Plan prepared by Drs. Almasov and Boltovskoy was thrown open for discussion by being published in the *Bulletin of Zoological Nomenclature* it was arranged that comments on that Plan might be sent either to the Office of the Commission or direct to Dr. Almasov, to whom also copies of comments received by the Office of the Commission would be forwarded for information. It was then contemplated that at the close of the investigation a comprehensive Report would be prepared by Dr. Almasov covering the comments received from all sources. Unfortunately, circumstances have prevented this arrangement from being carried into effect. In consequence, it is possible now only to present those comments which were addressed to the Office of the Commission direct.

8. In all nine communications were received in regard to the present matter; in addition, consideration was given to the Scheme in respect of certain of the Slav languages drawn up by the Royal Society in 1953 for use for bibliographical purposes. Four of the specialists who submitted comments expressed varying degrees of interest in, and support for, the principles underlying the Almasov/Boltovskoy Plan but indicated disagreement with certain of its provisions. The specialists concerned were: (1) Professor Dr. E. M. Hering (*Zoologisches Museum der Humboldt Universität zu Berlin*) (Document 26/3); (2) Dr. G. Witenberg (*Department of Parasitology, The Hebrew University, Jerusalem, Israel*) (Document 26/4); (3) Professor Dr. Tadeusz Jacezewski (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (Document 26/6); (4) Dr. Leo Sheljuzhko (*Zoologische Sammlung des Bayerischen Staates, Entomologische Abteilung, München, Germany*) (Document 26/9). Another zoologist, Dr. Curtis W. Sabrosky (*United States Department of Agriculture, Agricultural Research Service, Entomology Research Branch, Washington, D.C., U.S.A.*), while not commenting on the technical issues involved in the Plan, expressed support for the principle that the use of diacritic marks should be avoided which was embodied in it (Document 26/5). Another zoologist, Dr. Joshua L. Baily, Jr. (*San Diego, California, U.S.A.*) took issue with the authors of the Plan on their adoption of an orthographic, rather than a phonetic, basis for their scheme (Document 26/7). Dr. H. S. Bushell (*Commonwealth Institute of Entomology, London*), after enumerating the four conditions which a transliteration plan should satisfy, expressed the view that one only of those conditions was met by the Almasov/Boltovskoy Plan; Dr. Bushell commented particularly upon the difference in meaning attaching to certain Cyrillic characters in various Slav countries and referred to the consultations undertaken by the Royal Society when it drew up its plan for "The Transliteration of Russian, Serbian and Bulgarian for bibliographical purposes" (Documents 26/12 and 26/13); he believed that it was a weakness in the Almasov/Boltovskoy Plan that it attempted to provide for the needs not only of zoological nomenclature but also for those of bibliography and was of the opinion that it should be possible to devise a simpler and more satisfactory scheme, if its purpose were to be strictly confined to zoological nomenclature.

(Document 26/10). In November 1956 two letters on this subject were received from P. J. M. Geelan who, after drawing attention to the schemes for the transliteration of Russian and Bulgarian Place Names drawn up by the Permanent Committee on Geographical Names for British Official Use (Document 26/14), added the personal opinion that the best course would be for the International Congress of Zoology to adopt one or other of the national transliteration systems for use in zoological nomenclature (Document 26/11).

**9.** Finally, and, in my opinion, of outstanding importance in the present connection is a letter dated 5th September 1955 which was received from Dr. D. M. Steinberg, Vice-Director of the Zoological Institute of the Academy of Sciences of the U.S.S.R., covering a statement signed by Dr. A. A. Reformatsky on behalf of the Institute setting out the opinion of the Bureau of the Section of General and Comparative Linguistics of the Institute of Linguistics of the Academy of Sciences of the U.S.S.R. (Document 26/8). In this latter document objection was raised to the Almasov/Boltovskoy Plan and a method of transliteration involving an extensive use of diacritic marks was advocated. In the covering letter from the Institute of Zoology the foregoing Plan was examined not from a purely linguistic point of view but from the standpoint of zoological nomenclature. As regards this, the Institute of Zoology found the Plan, so far as it was related to the Russian alphabet "quite acceptable with the exception of the letter No. 39 (Б), which we think more desirable to succeed by the sign ("), when used in the middle of words, and omit when used at the end of words". As regards letters used not only in the Russian alphabet, but also in the Ukrainian and Belorussian languages, the Institute of Zoology expressed the view that it was desirable, if possible, that the views should be sought of the Academies of Sciences of the Ukrainian and Belorussian S.S.R. respectively.

**10.** As regards the point raised in the second part of the reply received from the Institute of Zoology of the Academy of Sciences of the U.S.S.R., it must be recalled at this point that, as shown in the Appendix to the present paper, the Academies of Sciences of the Ukrainian and Belorussian S.S.R. were invited to submit observations on the Almasov/Boltovskoy Plan in April 1955 at the same time that similar invitations were issued to the Academy of Sciences of the U.S.S.R. and to the Academies of Sciences of other Republics in the Soviet Union. No replies were, however, received either from the Academy of Sciences of the Ukrainian S.S.R. or from the Academy of Sciences of the Belorussian S.S.R.

**11.** Looking at the comments received as a whole, it seems reasonable to conclude :—

(a) that the various systems (such as those discussed in paragraph 8 above), e.g., in Documents 26/12 and 26/14 which involve at least some use of diacritic marks are unsuitable for use for zoological nomenclature ;

- (b) that the system which is required for zoological nomenclature is one based on the principles embodied in the Almasov/Boltovskoy Plan under which the Cyrillic characters which have no direct equivalent in the Latin alphabet would be rendered in that language (as used for zoological nomenclature) by combinations of letters, the use of diacritic marks being avoided ;
- (c) that, as pointed out in a number of the documents submitted (e.g., in Documents 26/6 and 26/11), it would be undesirable to adopt for zoological nomenclature any system, however technically ingenious, that represented the views of individuals only and that what is required is a scheme which will both be suitable for zoological nomenclature (by reason of the avoidance of diacritic marks) and will command the support of important national bodies concerned generally with the present problem ;
- (d) that, having regard to the fact that the subject under consideration is the transliteration of characters from the Cyrillic alphabets, particular weight should be given to the views expressed by Institutions in the U.S.S.R. and other countries, the mother tongue of which is written in Cyrillic characters ;
- (e) that the communication received from the Institute of Zoology of the Academy of Sciences of the U.S.S.R. (Document 26/8) justifies the conclusion that, so far as the Russian alphabet is concerned, the Almasov/Boltovskoy Plan, would be acceptable to zoologists in the U.S.S.R., subject to the adoption of the suggestion made by the Institute of Zoology in regard to Letter No. 39 ;
- (f) that, as the Academies of Sciences of the Ukrainian and Belorussian S.S.R. did not respond to the invitation that they should comment on the Almasov/Boltovskoy Plan, it may be assumed that no objection is felt by those bodies towards those parts of that Plan which specially concerns the transliteration of words belonging to the Ukrainian and Belorussian languages respectively.

**12.** In the circumstances the following propositions are submitted for consideration :—

- (1) that, subject to the amendment as regards Letter No. 39 recommended by the Institute of Zoology of the Academy of Sciences of the U.S.S.R., the Almasov/Boltovskoy Plan relating to the transliteration of Cyrillic characters into the Latin alphabet be approved for the purposes of zoological nomenclature ;

(2) that a Section embodying the foregoing portion of the Plan be inserted in the First Schedule to the *Règles* as the method which zoologists are recommended to follow when transliterating from Cyrillic characters to letters of the Latin alphabet words intended to be used as Latinised zoological names.

#### APPENDIX TO DOCUMENT 26/1

(a) **Copy of a letter despatched by the Office of the Commission on 2nd February 1955 to certain institutions in the U.S.S.R. and in other countries using Slav languages**

##### **Transliteration of words normally written in Cyrillic characters for the purpose of forming zoological names**

On behalf of the International Commission on Zoological Nomenclature I write to seek the views of your Institution on the question of the method to be adopted for transliterating words normally written in Cyrillic characters for the purpose of forming zoological names.

In this connection I have to refer to two decisions taken by the International Congress of Zoology which bear upon this matter. First, the Thirteenth International Congress of Zoology, Paris, 1948, decided to attach to the *Règles Internationales de la Nomenclature Zoologique* a Schedule giving advice as to the manner in which words normally written in Cyrillic characters should be transliterated for the purposes of zoological nomenclature. Second, the Fourteenth International Congress of Zoology, Copenhagen, 1953, decided (a) to abolish the use of diacritic marks over letters of words when used as zoological names, and (b) for the purpose of forming zoological names to prescribe methods for indicating by means of the addition of a supplementary letter, a letter which would otherwise have borne a diacritic mark, for example by adding the letter "e" to denote, in the case of a German word a modified letter "u" in place of using an umlaut.

In view of the decisions indicated above, the system of transliteration to be embodied in the *Règles Internationales* for the formation of zoological names based upon words derived from languages using one or other of the

Cyrillic alphabets will necessarily differ in certain respects from any of the transliteration systems hitherto devised.

In order to make a start with the study of this important problem, the International Trust for Zoological Nomenclature has published in its *Bulletin of Zoological Nomenclature* a paper by MM. Alexey Almasov and Esteban Boltovskoy containing proposals for a scheme of transliteration for use when forming zoological names. It will be noted that this scheme covers five alphabets using Cyrillic characters and that in consequence forty-eight letters are involved.

The International Commission is anxious to devise the best system of transliteration obtainable within the limits laid down by General Directive issued to it by the International Congress of Zoology banning the use of diacritic marks. For this purpose special arrangements have been made for an exceptionally wide canvass of opinion among both zoological and philological institutions as a preliminary to the taking by the Commission of a final decision in this matter.

At the request of the International Commission I enclose herewith for the consideration of your Institution a copy of the paper containing the plan drawn up by MM. Almasov and Boltovskoy. It is the hope of the International Commission that your Institution will co-operate in this important enterprise by furnishing comments on the foregoing plan or otherwise.

Comments prepared in response to the present invitation should be addressed to Francis Hemming at the address shown at the head of the present letter. It would be a great convenience if such comments could be furnished in duplicate. Comments should, if possible, reach this office not later than 15th October 1955.

(b) List of Institutions in the U.S.S.R. and other countries speaking Slav languages to which the Almasov/Boltovskoy Plan was communicated for observations on 2nd February 1955 (see (a) above)

(i) U.S.S.R.

1. Academy of Sciences of the U.S.S.R.,  
B. Kaluzhskaja 14, Moscow, U.S.S.R.
2. Academy of Sciences of the U.S.S.R.,  
Department of Biological Sciences, B. Kaluzhskaja 14, Moscow,  
U.S.S.R.

3. Academy of Sciences of the U.S.S.R.,  
Department of Literature and Language,  
Volkhonka 18/2, Moscow, U.S.S.R.
4. Academy of Sciences of the U.S.S.R.,  
Institute of Language and Thought,  
Universitetskaja Naberezhnaia 5, Leningrad, U.S.S.R.
5. Academy of Sciences of the Armenian S.S.R.,  
Department of Social Sciences, Erevan, U.S.S.R.
6. Academy of Sciences of the Azerbaijdzhanian S.S.R.,  
Department of Social Sciences, Baku, U.S.S.R.
7. Academy of Sciences of the Belorussian S.S.R.,  
Department of Social Sciences, Minsk, U.S.S.R.
8. Academy of Sciences of the Estonian S.S.R.,  
Department of Social Sciences, Tallin, U.S.S.R.
9. Academy of Sciences of the Georgian S.S.R.,  
Department of Social Sciences, Tbilisi, U.S.S.R.
10. Academy of Sciences of the Kazakh S.S.R.,  
Department of Social Sciences, Alma Ata, U.S.S.R.
11. Academy of Sciences of the Latvian S.S.R.,  
Department of Social Sciences, Riga, U.S.S.R.
12. Academy of Sciences of the Lithuanian S.S.R.,  
Department of Social Sciences, Vilnius, U.S.S.R.
13. Academy of Sciences of the Tadzhik S.S.R.,  
Department of Social Sciences, Stalinabad, U.S.S.R.
14. Academy of Sciences of the Turkmenian S.S.R.,  
Department of Social Sciences, Ashkabad, U.S.S.R.
15. Academy of Sciences of the Ukrainian S.S.R.,  
Department of Social Sciences, Kiev, U.S.S.R.
16. Academy of Sciences of the Uzbek, S.S.S.R.,  
Department of Social Sciences, Tashkent, U.S.S.R.
17. Library of the Academy of Sciences of the U.S.S.R.,  
Birzhevaja linija 1, Leningrad, U.S.S.R.
18. State Public Library,  
Nevskij Prospekt and ul. 3-go Iulja, Leningrad, U.S.S.R.

19. Lenin State Library,  
Mokhovaja 3, Moscow, U.S.S.R.
20. State Library of Foreign Literature,  
Stoleshnikov per. 2, Moscow, U.S.S.R.
21. Belorussian State Library,  
Minsk, U.S.S.R.
22. Korolenko State Library,  
Khar'kov, U.S.S.R.
23. Moscow State University, Faculty of Biology, Chair of General Zoology,  
Mokhovaja 11, Moscow, U.S.S.R.
24. Moscow State University, Faculty of Philology,  
Mokhovaja 11, Moscow, U.S.S.R.
25. Leningrad State University, Faculty of Biology, Chair of General Zoology,  
Universitetskaja nab. 7/9, Leningrad, U.S.S.R.
26. Leningrad State University, Faculty of Philology, Chair of Slav Languages,  
Universitetskaja nab. 11, Leningrad, U.S.S.R.
27. Leningrad State University, Faculty of Philology, Chair of Romano-Germanistic Languages,  
Universitetskaja nab. 11, Leningrad, U.S.S.R.
28. Leningrad State University, Faculty of Philology, Chair of West European Literatures,  
Universitetskaja nab. 9, Leningrad, U.S.S.R.
29. Belorussian State University, Faculty of Philology,  
University City, Minsk, U.S.S.R.
30. Belorussian State University, Faculty of Biology, Chair of General Zoology,  
University City, Minsk, U.S.S.R.
31. Central Asian State University, Faculty of Philology,  
Ul. K. Markas 35, Tashkent, U.S.S.R.
32. Central Asian State University, Faculty of Biology, Chair of General Zoology,  
Ul. K. Markas 35, Tashkent, U.S.S.R.
33. Kaunas State University, Faculty of Philology,  
Kaunas, U.S.S.R.

34. Kaunas State University, Faculty of Biology, Chair of General Zoology,  
Kaunas, U.S.S.R.
35. Kazan' State University, Faculty of Philology,  
Ul. Chernyshevskogo 18, Kazan', U.S.S.R.
36. Kiev State University, Faculty of Philology,  
Vladimirskaja 58, Kiev, U.S.S.R.
37. Kiev State University, Faculty of Biology, Chair of General Zoology,  
Vladimirskaja 58, Kiev, U.S.S.R.
38. Kazan' University, Faculty of Biology, Chair of General Zoology,  
Ul. Chernyshevskogo 18, Kazan', U.S.S.R.
39. Chernovithy State University,  
Universitetskaja 16, Chernovithy, U.S.S.R.
40. Latvian State University,  
Bul'var Rainisa 9, Riga, U.S.S.R.
41. Lvov State University,  
Marshalovskaja 1, Lvov, U.S.S.R.
42. Tartu State University,  
Tartu, U.S.S.R.
43. Vilnius State University,  
Vilnius, U.S.S.R.
44. Odessa State University, Faculty of Philology,  
Ul. Petra Velikogo, Odessa, U.S.S.R.
45. Odessa State University, Faculty of Biology, Chair of General Zoology,  
Ul. Petra Velikogo, Odessa, U.S.S.R.
46. Uzbek State University,  
Bul'var Gor'kogo 15, Samarkand, U.S.S.R.
47. Uzhgorod State University,  
Pl. Gor'kogo 1/3, Uzhgorod, U.S.S.R.
48. Voronezh State University,  
Prospekt Revoluthii 24, Voronezh, U.S.S.R.
49. Khar'kov State University,  
Ul. Svobodnoj Akademii 16, Khar'kov, U.S.S.R.

50. Gor'kij State University,  
Sovethkaja Pl. 8, Gor'kij, U.S.S.R.
51. Academy of Sciences of the Armenian S.S.R.,  
Department of Biological Sciences, Erevan, U.S.S.R.
52. Academy of Sciences of the Azerbajdzhanian S.S.R.,  
Department of Biological Sciences, Baku, U.S.S.R.
53. Academy of Sciences of the Belorussian S.S.R.,  
Department of Biological Sciences, Minsk, U.S.S.R.
54. Academy of Sciences of the Estonian S.S.R.,  
Department of Biological Sciences, Tallin, U.S.S.R.
55. Academy of Sciences of the Georgian S.S.R.,  
Department of Biological Sciences, Tbilisi, U.S.S.R.
56. Academy of Sciences of the Kazakh S.S.R.,  
Department of Biological Sciences, Alma Ata, U.S.S.R.
57. Academy of Sciences of the Latvian S.S.R.,  
Department of Biological Sciences, Riga, U.S.S.R.
58. Academy of Sciences of the Lithuanian S.S.R.,  
Department of Biological Sciences, Vilnius, U.S.S.R.
59. Academy of Sciences of the Tadzhik, S.S.R.,  
Department of Biological Sciences, Stalinabad, U.S.S.R.
60. Academy of Sciences of the Turkmenian S.S.R.,  
Department of Biological Sciences, Ashkhabad, U.S.S.R.
61. Academy of Sciences of the Ukrainian S.S.R.,  
Department of Biological Sciences, Kiev, U.S.S.R.
62. Academy of Sciences of the Uzbek, S.S.S.R.,  
Department of Biological Sciences, Tashkent, U.S.S.R.

(ii) Poland

63. Polish Academy of Sciences, Section of Social Sciences,  
Warsaw, Poland.
64. Polish Academy of Sciences, Section of Biological Sciences,  
Warsaw, Poland.

65. Library of Jagellonian University,  
Al. Mickiewicza 22, Cracow, Poland.
66. Library of Warsaw University,  
Krakowskie Przedmiescie 26-28, Warsaw, Poland.
67. National Library,  
Rakowiecka 6, Warsaw, Poland.
68. Uniwersytet Warszawski,  
Krakowskie Przedmiescie 26-28, Warsaw, Poland.
69. Uniwersytet Lodzki, Lodz, Poland.
70. Uniwersytet Poznanski, Poznan, Poland.

**(iii) Bulgaria**

71. Bulgarian Academy of Sciences, Section of Biological Sciences,  
7th November Street, Sofia, Bulgaria.
72. Bulgarian Academy of Sciences, Section of Social Sciences,  
7th November Street, Sofia, Bulgaria.
73. Central Library,  
7th November Street, Sofia, Bulgaria.
74. "Vassil Kolarov" State Library,  
Boulevard Tolbukhin 11, Sofia, Bulgaria.
75. Sofijski Universitet, Sofia, Bulgaria.

**(iv) Yugoslavia**

76. Srpska Akademija Nauka,  
Knez Mihailova ulica 35, Belgrad, Yugoslavia.
77. Slovenska Akademija znanosti in umetnosti,  
Postni predal 323, Ljubljana, Yugoslavia.
78. People Library,  
Knez Mihailova 56, Belgrad, Yugoslavia.
79. Narodna in universitetna knjiznica,  
Ljubljana, Yugoslavia.
80. University of Belgrad,  
Belgrad, Yugoslavia.
81. University of Ljubljana,  
Ljubljana, Yugoslavia.

(v) **Czechoslovakia**

82. Czechoslovak Academy of Sciences,  
Narodni Tr. 5, Prague 1, Czechoslovakia.
83. Czechoslovak Standards Bureau,  
Vaclavske nam. 19, Prague, Czechoslovakia.
84. Czechoslovak Academy of Sciences Fundamental Library,  
Narodni Tr. 5, Prague 1, Czechoslovakia.
85. State Comenius Library,  
Mikulandska, Prague, Czechoslovakia.
86. Charles University, Faculty of Philosophy,  
Parizska tr. 27, Prague, Czechoslovakia.
87. Masaryk University,  
Brno, Czechoslovakia.
88. Slovak University of Bratislava,  
Ul. Paulinyho 1, Bratislava, Czechoslovakia.

DOCUMENT 26/2

A Plan for the treatment of words written with Cyrillic characters for the purposes of zoological nomenclature published in 1955 as a basis for discussion in relation to the Schedule giving guidance in the above matter, the addition of which to the "Règles" was agreed upon, in principle, by the Thirteenth International Congress of Zoology, Paris,

1948

By ALEXEY ALMASOV and ESTEBAN BOLTOVSKOY

(Buenos Aires, Argentina)

[Editorial Note : The present paper was published with the title "On the Treatment of Words written with Cyrillic Characters, for the purposes of Zoological Nomenclature, Bibliography, Reference Indices, Etc." on 31st January 1955 (*Bull. zool. Nomencl.* 11 : 7-18)]

Several works on zoology have raised lately the problem of transcription of words from languages using the Cyrillic alphabets. The aim of the present paper is to analyse the difficulties which confront scientists and those who are working in libraries and publishing houses and have to face the chaos existing in this domain. We attempt to show the defects of transliteration methods now in use and propose a new system which could be applied equally to all the five principle languages using Cyrillic alphabets, and would thus contribute to the establishment of a scientific nomenclature. Our proposals are set out in the table in the present paper.

2. Strange as it may seem, there is at present no unified and generally accepted transliteration system from the Cyrillic alphabets. On the other hand, all the individual systems in use today have, from the point of view of zoological nomenclature, one major defect, caused by their authors having set out from the phonetic relationship between the various Slav languages and their mother tongues. Thus, a single Russian river figures as "Tschir" in a German work, whilst an Englishman refers to it as "Chir.". There is therefore no need to emphasise the difficulties confronting a scientist about to compile a reference index on the basis of scientific literature in the various languages read by him. Furthermore, even translators into one and the same language are often guided by their own taste in transliterating names, so that one English work cites the name of a Russian town as "Eysk", whereas

No.	Cyrillic letters	Proposed Latin alphabet equivalent	No.	Cyrillic letters	Proposed Latin alphabet equivalent
1	А а	<i>a</i>	13	И и	<i>i</i>
2	Б б	<i>b</i>	14	І і	<i>ih</i>
3	В в	<i>v</i>	15	Ї ї	<i>ji</i>
4	Г г	<i>g</i>	16	Ӯ ѕ	<i>j</i>
5	Ӯ ѕ	<i>gh</i>	17	҂ ѕ	<i>j</i>
6	Д д	<i>d</i>	18	҄ к	<i>k</i>
7	Ҥ Ҥ	<i>dj</i>	19	Ӆ Ӆ	<i>l</i>
8	Ӗ Ӗ	<i>e</i>	20	Ӆ Ӆ	<i>lj</i>
9	Ӗ Ӗ	<i>jeh</i>	21	Ӎ Ӎ	<i>m</i>
10	Ӯ ѕ	<i>ew</i>	22	Ҥ Ҥ	<i>n</i>
11	҂ ѕ	<i>zh</i>	23	Ӯ Ӯ	<i>nj</i>
12	Ӡ Ӡ	<i>z</i>	24	Ӯ Ӯ	<i>o</i>

Figures 1 and 2 : Plan for the transliteration into the Latin alphabet of words normally written that the above (or any other) system should be mandatory. What is proposed is that an approved forming names based on words normally written in Cyrillic characters).

No.	Cyrillic letters	Proposed Latin alphabet equivalent	No.	Cyrillic letters	Proposed Latin alphabet equivalent
25	Π π	<i>p</i>	37	Ш ш	<i>sh</i>
26	Ρ ρ	<i>r</i>	38	Щ щ	<i>shch</i>
27	Ҫ ҫ	<i>s</i>	39	Ҭ ҭ'	<i>w</i>
28	Ҭ ҭ	<i>t</i>	40	ۉ ۉ	<i>y</i>
29	Ҥ Ҥ	<i>chj</i>	41	ۉ ۉ	'
30	Ү ү	<i>u</i>	42	Ҭ ҭ	<i>je</i>
31	Ӯ Ӯ	<i>uh</i>	43	Ӭ Ӭ	<i>eh</i>
32	Ф Փ	<i>f</i>	44	Ю յ	<i>ju</i>
33	Х Ҳ	<i>kh</i>	45	Я յ	<i>ja</i>
34	Ц Ү	<i>th</i>	46	Ӫ Ӫ	<i>f</i>
35	Ч ұ	<i>ch</i>	47	Վ Վ	<i>i</i>
36	Ұ Ұ	<i>dzh</i>	48	Ж	<i>yh</i>

in Cyrillic characters when such words are used for zoological names (Note : It is not proposed transliteration system should be annexed to the *Règles* for the guidance of zoologists when

in another English work it figures as "Yeisk". As a result, even such an authoritative bibliographical guide as the *Zoological Record* uses different characters for the same Cyrillic letter. One of the favourite objects of the translators' "freedom of imagination" is the transcription of the most frequent termination for Russian and Bulgarian names, which is variously cited as "-ov", "-ow", "-off" or even "-of".

3. We could give many examples of confusion created by such discrepancies as far as zoological and botanical names are concerned, but we shall quote here only one, which has been already generally discussed in the specialist press. Actually, one such case was taken as a subject by Dr. Helen Muir-Wood (1951 : 91) for her interesting article where she put forward the suggestion that the International Congress of Zoology should take a decision concerning the transliteration of words from languages using Cyrillic Alphabets, and that such a provision ought not to take the form of a recommendation but should be a binding directive.

4. Another zoologist, Dr. Paelt, who has published several papers on the problem of transliteration, expressed himself even more drastically (1950 : 998) by proposing to incorporate the transliteration system in the form of Appendix "H" in Article 19 of the *Règles Internationales de la Nomenclature Zoologique*. It is self-understood that this provision would then have to be adhered to as strictly as all the other Articles of the *Règles*.

5. Finally, the International Congress of Zoology has decided to include in the forthcoming revised text of the *Règles* a Schedule setting out the manner to be observed in transliterating words from the Cyrillic alphabets into the Latin alphabet when used as, or as part of, zoological names. We would, however, go even further by suggesting the necessity of including the standard transliteration system not only in the Rules of Zoological Nomenclature, but also in the Botanical Code and in Editorial Rules. It is desirable to unite the greatest possible number of publishers and periodicals in the use of a standard transliteration system, as only then can the chaos at present reigning in the transcription field be remedied. We do not think it necessary to enlarge on this subject, as sufficient matter has been already written on it, and we assume that no doubts are left on this account.

6. Of greater importance is the question of what form this standard system should take. All systems employed up to the present can be divided into two groups, in accordance with the way in which they transliterate those characters of the Cyrillic alphabets which have no counterpart in the Latin alphabet. The first of these systems is based on the principle of using of Latin letters surmounted by diacritic signs. The second is based on the principle of combining several letters of the Latin alphabet.

7. Viewed from a purely philological point of view, the two systems are equal in merit and in practice, most of the modern languages using the Latin alphabet employ both systems for the rendering of sounds which do not exist in Classical Latin. When dealing with the transliteration of languages using the Cyrillic alphabets, we cannot help but realise that the system of diacritic signs presents considerable advantage in that it is not bound to the phonetics of any particular non-Slav-language. Therefore it is usually employed in works on Slav literature and Slav philology written in non-Slav languages. Is it then to be wondered at if the Czechoslovak zoologist Dr. Paclt became an ardent adherent of this system, in view especially of the fact that the diacritic signs—the “hačeks”—are nearest to his psychology, being constantly used in his native tongue? The transliteration system adopted by the Vatican library is based on the same principle.

8. Nonetheless, diacritic signs are seldom used in scientific works, and Dr. Paclt's assertion that “manche diackritische Zeichen (z.B. č, š, ž) . . . zur Romanisierung der kyrillischen Namen bereits offiziell benutzt werden” (1952 : 359) does not correspond with actual facts. As proof of this we could cite a long list of the most important bibliographical reference guides of various countries. In all of them the Cyrillic words have been transliterated without the use of diacritic signs. The following are a few examples of such publications: *Zoological Record* (Great Britain), *Bibliography and Index of Geology Exclusive of North America* (U.S.A.); *Bibliographie des Sciences Géologiques* (France); *Zentralblatt für Paläontologie* (Germany); *Boletín del Centro de Documentación Científica y Técnica* (Mexico); *Scientiae Naturalis Bibliographia* (Holland); *Boletín Bibliográfico Argentino* (Argentina). Russian authors also, if transcribing Cyrillic words into Latin characters, prefer with rare exceptions to avoid diacritic signs. This applies to the *Doklady* and *Izvestija* published by the Academy of Science as well as to other publications which appeared before 1947, in which year Soviet publications ceased to insert summaries and titles in foreign languages.

9. Moreover, Dr. Paclt's proposals appear to us dangerous insofar as by defending the general use of diacritic signs they route the quest for a standard transliteration system into the wrong channels. In fact, we completely fail to understand how Dr. J. Paclt, who recommends the replacement of diacritic signs by supplementary letters in the Hungarian, German and Scandinavian languages, can consider the same process as unsuitable for the Slav languages. And yet there are weighty practical reasons in favour of substituting letter-combinations for diacritic signs also in the Slav tongues.

10. It is evident that most printers do not possess the type for diacritic signs, and writers who wish to use such signs would normally not be in a position to do so. Such authors would then be forced to invent their own transliteration schemes “ad hoc”. Is there a question of a universal system?

Dr. Paclt's phrase "Darum ist es immer zu wünschen, dass möglichst viele Druckereien die verschiedenen diakritischen Zeichen auf eine oder andere Weise reproduzieren können" (*Ibidem*) sounds altogether too optimistic. Unfortunately, neither the most ardent wish of one zoologist nor even the verdict of a Zoological Congress carries weight with the owners of printing works.

11. In this connection the following fact is of significance. The library of the United States Congress have worked out their own transliteration system and although the "hačeks" does not figure in it, other diacritical signs are employed. Nevertheless, when a large bibliographical work by R. Smits, namely the *Serial Publications of the Soviet Union 1939-1950* was published, these signs were omitted, and the book appeared without them. This example shows clearly that, in spite of all the theoretical arguments which can be brought forward in defence of the transcription of letters of the Cyrillic alphabets by means of diacritic signs, this system can only be employed for special publications which have the corresponding printing types at their disposal. In all other cases (especially taking into account the additional inconvenience of using this system on typewriters) this method is quite unusable and cannot be accepted as a method for the creation of a standard international system.

12. But the most powerful argument against the system of diacritic signs is the decision of the Fourteenth Congress of Zoology, Copenhagen, 1953, to ban the use of diacritic signs in zoological names. It seems obvious that, if even in the practice of zoological nomenclature this system has to be banned, there is still more reason to drop it in library practice and in editorial work in general.

13. As regards the system of combining several Latin letters, up to the present its sole disadvantage lay in the fact that these combinations were made liberally and sometimes, as for instance in German, were exceedingly cumbersome (the rendering of one Cyrillic letter—the letter No. 38 of our table—demanded the use of seven Latin letters: "schtsch"). However, this one fault caused by striving to render the phonetic relationship between the Slav languages and those using the Latin alphabet, is easy to remedy by taking a letter without its own phonetic meaning (for instance, the letter "h") and using it in the place of a diacritic sign, in order to change the phonetic meaning of the preceding letter. This solution is all the more adequate as it is already used in English transliteration practice where the combinations "ch", "sh", "zh", and "kh" are employed.

14. For this reason, the transcription systems elaborated for the English-speaking countries, are fairly close to what ought to be the international system. The size and the aim of the present paper do not allow an extensive analysis

of such systems from the philological standpoint. In practice, even the best among them, as for example that created by the Library of the U.S. Congress, are unfit for the present purpose because, while striving to adapt Slav phonetics to English sounds, they are compelled to introduce additional signs or to use the same Latin letter for several different Cyrillic letters. On the other hand, owing to the constant effort to be exact phonetically, the same Cyrillic letter, when it corresponds to different sounds in different Slav tongues is transcribed by means of different Latin letters, according to the phonetic requirements of the language concerned. For this reason, instead of one transliteration table one would have to prepare five tables, the use of which would be impossible for persons who are not acquainted with those languages. We have also noticed the inadequacies of the many transliteration methods now in use in scientific practice as well as the illogical ways in which these methods are applied. A superficial glance to the Russian quotations in the *Geophysical Abstract* prove this very convincingly.

15. Thus, in order that a transliteration system may actually become universal, it must, in our opinion, satisfy the following demands :—

- (1) The system must be orthographic and not phonetic, i.e. each letter (and not sound) of the languages using the Cyrillic Alphabets must have its corresponding letter or combination of letters in the Latin Alphabet. This consideration is particularly important as its adoption will enable librarians and printers who have no knowledge of Slav languages to transcribe accurately words written with Cyrillic characters and thus to build up accurate card indexes. It is well known that at present even for the most elementary tasks connected with the Cyrillic alphabets the co-operation of persons knowing Slav tongues is required. Furthermore, the acceptance of this requirement will provide the possibility of an "inverted transliteration", i.e. it will make it possible to establish the exact form in the Slav languages of names written with Latin letters and to locate them in alphabetical reference books in the original language. At present this process is at times very difficult.
- (2) The system must be a system applying equally to the five Slav languages using the Cyrillic alphabets. Dr. Paclt asserts that "il est impossible de faire usage "en bloc" d'un seul tableau de romanisation servant à tous les alphabets slaves cyrillics" (1950 : 996). This assertion might have been correct, had it been our aim to render phonetically the letters of these languages. But, as our plan is to render them graphically, the preparations of such a table for the use of all five languages is quite feasible.
- (3) The system ought to be international. The pronunciation for the characters used ought also to be definitely settled. Although the phonetic side of the problem appears to be of secondary importance,

nevertheless it is necessary to take as the basis the phonetic similarities with some one existing language. We have decided to choose English for this purpose as being the most suitable.

(4) Diacritic signs ought to be avoided on practical grounds.

16. The system which we have elaborated and which is represented on the annexed table, seems to meet satisfactorily all the above requirements. The most important divergence from systems now in use is that a single Latin letter or groups of letters is proposed for each Cyrillic letter, even where that letter has a different meaning in different Slav languages. For instance, Letter No. 4 in the annexed table has a different meaning in the Ukrainian and Belorussian languages from that in the other Slav languages. Similarly, Letter No. 8 has a different meaning in the Ukrainian and Serbian languages from that in the other Slav languages. Letter No. 13 is different in the Ukrainian language from the same letter in the other Slav languages. Letter No. 38 is pronounced differently in Russian and Ukrainian from the way used in Bulgarian. Letter No. 19 presents wide variations in different languages and dialects.

17. Nevertheless, these phonetic differences need not worry us, as they represent no difficulty to a person having a knowledge of the respective languages and are a matter of complete indifference to a person who does not know the language concerned. In different languages using the Latin alphabet the same letter also frequently has a different phonetic meaning, and yet nobody suggests that the name "Churchill" should be spelt as "Tschortschill" in German, or the name "Schumann" be spelt "Choumane" in French. On the other hand, the method which we recommend possesses the definite advantage that it enables anybody to transliterate a word correctly without knowing to which Slav language the word in question belongs.

18. As we have explained, we are keeping generally to the English language phonetics. We do this mainly because in practice the English method of transliteration affords a considerable economy in the use of letters for the forming of the combinations (almost everything is reduced to one "h"). Besides, it must be taken into account that the English language is so widely spoken at present that the English manner of writing Slav words has become well known and customary even for those people who do not possess a knowledge of that language. For example, this method of transliteration is very widely adopted in the Spanish-speaking countries. Actually, our only deviation from English phonetic rules is that we give the letter "j" the phonetic meaning which it has in German and the Slav languages using the Latin alphabet; it corresponds in phonetic value to the English letter "y". In this way we

succeed in avoiding the use of diacritic signs ; a result which the system of the U.S. Library of Congress failed to achieve owing to the effort which it made to adhere strictly to English phonetics.

19. The foregoing decision may seem inconsequent at first glance, as the letter "j", corresponding to real Letters No. 16 and No. 17 in the table, has on the other hand the function of a "supplementary sign" when it is combined with "a", "e" and "u". Such criticism would be justified if such double usage would be a handicap for "inverted transliteration". However, in all five Slav languages corresponding sounds are represented in an absolutely definite way, thus eliminating the possibility of confusion. Analogous considerations are valid for the letter "w" which represents the Cyrillic letter No. 39 and enters in combination with "e" for rendering Letter No. 10. In this case also confusion is impossible because of the fact that the Letter No. 39 can never be preceded by a vowel.

20. But such a confusion would be unavoidable if we were to represent Letter No. 34 by "ts" according to methods now in use, for Letter No. 28 is quite frequently followed by Letter No. 27 in Slav languages. We have therefore preferred to take "th" thus keeping "h" to its function of a supplementary sign.

21. Letter No. 41 does not correspond to any sound, it merely draws attention to a slight change in the pronunciation of the preceding sound. Therefore, while transliterating, this letter generally will not be designated at all in every-day routine, and among the scientific systems it is indicated at most by an apostrophe. It could readily be rendered by any Latin letter, for instance by "q", but in this case already known geographical names, such as Kuban, Kharkov, would assume a rather puzzling and unusual look ; Kubanq, Kharqkov. In order to avoid a result of this kind, we decided to keep to the generally accepted method and to recommend the use of the apostrophe.

22. Finally, we would like to stress that, while elaborating our scheme, we were striving to keep it as simple as possible, transliterating the more frequent Cyrillic letters with the smallest practicable number of Latin characters.

23. The table which we submit comprises all letters existing in the Russian, Ukrainian, Belorussian,\* Serbian and Bulgarian languages. Letters existing only in certain of these languages are placed in accordance with the order

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\* This language is usually designated as "White-Russian". We prefer the term "Belorussian" in order to avoid undue confusion in identifying an ethnical section of the Russian people with a purely political group.

in which they are to be found in each of the alphabets of the languages concerned. Thus, Letters Nos. 7, 17, 20, 23, 29 and 36 exist only in the Serbian language ; Letters Nos. 9 and 15, only in Ukrainian ; Letter No. 31, only in Belorussian ; Letter No. 48, only in Bulgarian ; Letters Nos. 46 and 47, only in the old Russian orthography ; Letters Nos. 10, 40 and 43 exist in Russian and Belorussian and the sign over Letter No. 10 is generally omitted in the Russian practice. Letter No. 5 is used only in Ukrainian and Belorussian ; Letter No. 39 only in Russian and Bulgarian ; Letter No. 42 only in the old Russian orthography and in Bulgarian ; Letter No. 38 only in Russian, Ukrainian and Bulgarian ; Letter No. 14 only in Ukrainian, Belorussian and the old Russian orthography. Letters Nos. 16, 41, 44 and 45 do not exist in Serbian.

24. In scientific routine it is usual to employ the Croat Latin alphabet for the transliteration of Serbian words, but we think it more suitable to include Serbian in the general system in view of the following considerations : (1) The Croat alphabet appears to us unsuitable, as it is based on the use of diacritic signs. (2) In journalism and every-day routine Serbian, words are often transcribed in accordance with phonetic similarities with the German, Italian and even English or Spanish languages. Thus, the situation of the Serbian language in practice differs little from other languages using Cyrillic alphabets.

25. In the case of all languages, except Russian, only the modern orthography is taken into account. The exception made in the case of Russian may be explained by the fact that the abolition of certain letters has taken place only a relatively short time ago (1919), and outside the Soviet Union, books are still being published using all or some of the abolished letters.

26. The following supplementary notes are added in regard to certain of the letters shown in the annexed table :—

Letter No. 10. In transliterations from the Russian language it is recommended that the letter " W " be omitted, as the sign " .. " is omitted in the majority of original works.

Letters Nos. 14 and 42. These letters were abolished in the Russian orthography by the 1919 reform and should consequently be replaced by " i " and " e " respectively, always providing that the person who does the transliteration is sure that the word in question is Russian and not Bulgarian, Ukrainian or Belorussian.

Letter No. 17. This letter represents the way in which Serbs indicate the sound, which is indicated in the other Slav languages by the Letter No. 16.

Letter No. 39. This letter should be reproduced only in the middle of a word. It should be omitted if it figures at the end of the word in the original version. In some of the Soviet works (usually prior to 1929) this letter was replaced by the sign " " and it should therefore be rendered also by " W ".

Letters Nos. 46 and 47. Both these are letters of the former Russian orthography, which are very rarely used. Thus, there is no need whatever to create special signs for rendering them, since even in Russian texts following the old orthography they are often replaced by Letters Nos. 32 and 13 respectively.

27. We give below a list of names of the Cyrillic letters arranged according to our scheme. Russian alphabet names are treated as being basic, the names in the other Slav languages are quoted only in the three following cases : (1) when a letter does not exist in Russian ; (2) when the phonetic value of a given letter differs from the Russian ; (3) when the name of a letter used in another language is substantially different from the name in Russian. Less important variations (as for instance " fe " for " ef " or " khe " for " kha ") are left out of consideration. The abbreviations used are the following " U " = Ukrainian ; " BR " = Belorussian ; " B " = Bulgarian ; " S " = Serbian ; " ORO " = old Russian orthography.

(1) a ; (2) be ; (3) ve ; (4) ge, U, BR—he ; (5) U, BR—ge ; (6) de ; (7) S—dje ; (8) je, U, S—e ; (9) U—je ; (10) jo ; (11) zhe ; (12) ze ; (13) i, U—y, ORO—double i ; (14) U, BR—i, ORO—single i ; (15) U—ji ; (16) brief i, U—ij ; (17) S—j ; (18) ka ; (19) el ; (20) S—lj ; (21) em ; (22) en ; (23) S—nj ; (24) o ; (25) pe ; (26) er ; (27) es ; (28) te ; (29) S—chje ; (30) u ; (31) BR—brief u ; (32) ef ; (33) kha ; (34) the ; (35) che ; (36) S—dzhe ; (37) sha ; (38) shcha, B—sht ; (39) hard sign, B—big jer ; (40) y ; (41) soft sign, B—small jer ; (42) ORO—jat', B—double je ; (43) e ; (44) ju ; (45) ja ; (46) ORO—fita ; (47) ORO—izhitha ; (48) B—yh. Note : The letter " j " has the phonetic value of the English " y ".

28. **Appeal to interested specialists** : The creation of a logical and practicable transliteration system is of common interest to all parts of the international scientific world. It is very important therefore that any such system should enjoy the widest possible measure of support. It is accordingly very desirable that comments on our proposals should be as numerous as possible. It is important also that such comments should be furnished as promptly as possible, for a decision on the present matter must be taken by the International Commission on Zoological Nomenclature before the revised text of the *Règles Internationales de la Nomenclature Zoologique* can be promulgated, since under

the decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the rules relating to the transliteration of words from the Cyrillic alphabets are to be incorporated in one of the Schedules to be annexed to the revised text of the *Règles*. The Secretary to the International Commission has invited us to act as a centre for the reception and collation of comments on, and suggestions regarding, the transliteration scheme submitted in the present paper, and for this purpose, on his recommendation, the International Trust for Zoological Nomenclature has made available to us a large supply of copies of the present paper for distribution. It is our particular hope, therefore, that as many interested specialists as possible will furnish us with statements of their views on our proposals. Statements so furnished may be written in any of the following languages : English ; German ; French ; Italian ; Spanish ; Portuguese ; any Slav language. All such communications should be addressed to Alexey Almasov (the senior author) at the following address : Avda. de Mayo 665, Piso 6, Buenos Aires, Argentina.

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DOCUMENT 26/3

Comment on the Almasov/Boltovskoy Plan relating to the transliteration of Cyrillic characters into the Latin alphabet

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(Statement received on 14th February 1955)

Es ist sehr begrüssenswert, dass die in die künftigen revidierten Regeln für die Zoologische Nomenklatur aufzunehmenden Vorschläge der Transliteration der cyrillischen Schriftzeichen so ausführlich zur Diskussion gestellt worden sind. Es wäre zu wünschen, dass sich auch alle Herausgeber wissenschaftlicher Zeitschriften einer solchen Regelung, sobald sie einmal vorliegen wird, anschliessen, damit eine weitgehende Einheitlichkeit in der Umschreibung solcher Namen durchgeführt wird. Es erscheint mir zweckmässig, das dabei noch einige Punkte hervorgehoben werden.

1. Die vorgeschlagene Transliterations-Empfehlung soll in keinem Falle rückwirkend angewendet werden, um die Stabilität der Nomenklatur nicht zu stören. Wo früher anstelle der nun einzuführenden Transliterations-Methode "diacritic signs" verwendet wurden, sollten diese künftig nur weg gelassen werden, ohne dass Buchstabenveränderungen eintreten.

2. Die Transliterations-Vorschriften sehen die Wiedergabe cyrillischer Schriftzeichen in lateinischen Buchstaben oder Buchstaben-Kombinationen vor, mit deren phonetischem Wert in der englischen Sprache. Da nicht alle Sprachen in solcher Wiedergabe berücksichtigt werden können, ist die englische Sprache wegen ihrer Weltverbreitung dazu besonders geeignet, wenn diese Wiedergabe auch in der französischen und einigen germanischen Sprachen zunächst fremdartig wirkt. Da Transliteration in dieser Form in der Vergangenheit vielfach benutzt worden ist, werden sich auch Angehörige von Nationen mit anderen Sprachen bald an sie gewöhnen.

3. Wichtig erscheint es mir aber, für die Umschreibungs-Vorschläge ein Prinzip zu betonen: Es ist in fast allen Fällen unmöglich, eine vollständig laut-getreue Wiedergabe der betreffenden Charactere zu erreichen, da diese mit allen Feinheiten doch nicht zu erzielen ist, daher auch entbehrlich ist. Es braucht also bei der Transliteration nur ein Annäherungswert in phonetischer Hinsicht erhalten zu werden. Deshalb können meiner Meinung nach gewisse Buchstaben-Kombinationen in dem Entwurf bei der künftigen endgültigen

Regelung weggelassen werden. Ich glaube, dass es nichts schadet, wenn verschiedene cyrillische Schrift-zeichen auch durch eine gleiche Kombination von lateinischen Buchstaben wiedergegeben werden, wodurch eine wesentliche Vereinfachung für den Benutzer erzielt wird. Es genügt wohl doch, wenn die vorgeschlagene Umschreibung dem cyrillischen Lautwert nahe kommt ; ihn vollständig zu erreichen, ist ja doch nicht möglich.

4. Unter Bezugnahme auf diese Ausführungen mache ich die folgenden Abänderungs-Vorschläge :

In der Transliterations-Tabelle mögen die durch die Ziffern bezeichneten cyrillischen Schriftzeichen wie folgt abgeändert werden :

No. 8. Dieses Schriftzeichen möge durch "je" wiedergegeben werden, da (im Gegensatz zu No. 43) bei der Aussprache deutlich ein j-Laut dem e vorangeht, so namentlich bei Stellung des Schriftzeichens am Beginn eines Wortes.

No. 10. Dieses Schriftzeichen muss unbedingt durch "jo" wiedergegeben werden, da das é im Slavischen niemals als e gesprochen wird ; zudem wirkt die Wiedergabe des é mit "ew" irreführend besonders dann, wenn auf das é noch das cyrillische Schriftzeichen folgt, das in der deutschen Sprache als w (im Entwurf mit v wiedergegeben) umgeschrieben wird.

No. 13 und 14 klingen so ähnlich, dass in der Transliteration die Wiedergabe durch das eine zeichen i für beide Schriftzeichen ausreichend erscheint.

No. 39. Für das "Härte-Zeichen" schlage ich die vollständige Weglassung vor, da es ja auch in den slavischen Sprachen nicht ausgesprochen wird, sondern nur den vorhergehenden Konsonanten in einer Weise beeinflusst, dass er mit dem Klang erscheint, den er ohnehin in der englischen Sprache hat.

No. 41. Für das "Weichheits-Zeichen" schlage ich die Umschreibung mit "j" vor, das hinter den betreffenden Konsonanten zu stellen wäre. Das entspricht am besten dem phonetischen Wert dieses Zeichens. Die Verwendung eines' halte ich für ungeeignet ; dieses Zeichen kann dann leicht mit einem Apostroph verwechselt werden, so namentlich bei der Transliteration von Personen-Namen.

No. 43. Dieses Zeichen ist zweckmässig mit einem einfachen c zu umschreiben, da bei seiner Aussprache (im Gegensatz zu Zeichen No. 8) niemals ein j-Anlaut zu hören ist.

Zusammenfassend möchte ich empfehlen, dass man sich bei den Transliterationsvorschriften nicht scheuen soll, für sehr ähnlich klingende cyrillische Schriftzeichen einen gleichen lateinischen Buchstaben oder eine solche Buchstaben-Kombination zu verwenden, um eine leichtere Handhabung der Empfehlungen zu gewährleisten und leichteres Verständnis der Umschreibung zu erreichen. Es erscheint mir nicht wünschenswert, in die Buchstaben-Kombinationen willkürlich Zeichen wie h oder w einzufügen um anzudeuten, dass geringere phonetische Verschiedenheiten bestehen. Die Erreichung eines phonetischen Annäherungs-Wertes erscheint mir ausreichend.

**DOCUMENT 26/4**

**Comment on the Almasov/Boltovskoy Plan for the transliteration of  
Cyrillic Characters**

By **G. WITENBERG**

(*Department of Parasitology, The Hebrew University, Jerusalem, Israel*)

(Letter dated 15th March 1955)

In response to your appeal<sup>1</sup> concerning the transliteration of Cyrillic transcriptions into the Latin alphabet, published in Part 1, vol. 11 of the *Bulletin of Zoological Nomenclature* I wish to express some views on this question, and I would be grateful if you could bring them to the notice of Dr. Almasov.

By proposing his thoroughly elaborated but rather revolutionary system of transliteration, it seems to me that Dr. Almasov did not follow the recommendation of the International Congress of Zoology to set up a method of transliterating words (that means sounds) written originally in the Cyrillic alphabet. Instead, his system implies the transliteration of the Cyrillic alphabet, not always exactly considering the sounds it represents. It seems to me that the transliteration should primarily be concerned with phonetics, while the original transcription should be of secondary value.

As pointed out by Dr. Almasov, pronunciation of some Cyrillic letters is different in various Slavic languages. It is evident, therefore, that their transliteration according to a rigid key common to all these languages might bring about distortion of their true characteristics. It seems, thus, that no such common key would be practicable. What we badly need is a system of transliteration of Cyrillic transcriptions for every Slavic language. I am not conversant with all of the Slavic languages, but I may judge the methods of transliteration of Russian transcriptions, and here I see a few difficulties in the system proposed by Dr. Almasov.

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<sup>1</sup> See paragraph 6 in Document 26/1.

(1) The transliteration of the Russian Є by "ew" would be misspelled by all who do not know that this letter is pronounced in English like "yaw". Considering the Russian "approach", the letters "yo" or "jo" would be more appropriate.

(2) Transliteration of the Russian І by "th" instead of "ts" as is customary, would confuse all English speaking readers for whom "th" has a quite different sound; "ts" or "tz" seem to be more correct.

(3) Similarly, "tsh" seems to be more suitable than the proposed "ch" for transliteration of the Russian ҃.

I presume that similar confusing interpretations of the original pronunciation may be met in the transliteration of other Slav transcriptions, should a common key be accepted. I would, therefore, propose that a system of transliteration on the basis of pronunciation in every particular Slavic language but not transcription be worked out. This would possibly require efforts of experts in several Slavic languages, but such efforts would be worthwhile.

**DOCUMENT 26/5**

**Comment on the Almasov/Boltovskoy Plan for the transliteration  
of Cyrillic Characters**

By **CURTIS W. SABROSKY**

*(U.S. Department of Agriculture, Agricultural Research Service,  
Entomology Research Branch, Washington, D.C., U.S.A.)*

*(Letter dated 21st March 1955)*

The article by Almasov and Boltovskoy on transliteration from languages using Cyrillic characters was indeed interesting. I cannot comment on it from a technical standpoint, but I certainly approve and applaud the idea of a system which would avoid the use of diacritic marks.

## DOCUMENT 26/6

**Comments by Professor TADEUSZ JACZEWSKI (Warsaw) on the Almasov/Boltovskoy Plan for the transliteration of Cyrillic Characters**

## (a) Letter dated 29th March 1955

In connection with your "Notice to Zoologists and Palaeontologists" concerning the future schedule relating to the transliteration of words from the Cyrillic alphabets into the Latin alphabet (*Bull. zool. Nomencl.* 11 : 4-7, and with the communication of Drs. A. Almasov and E. Boltovskoy (*ibid.* : 7-18), I would like to express the following opinion.

I think the matter is very important and serious not only because the whole question requires urgently uniform regulation, but also as it is connected with effective international co-operation in the field of zoological nomenclature. I think, therefore, that it is absolutely impossible to take any decisions concerning these matters without a previous consultation with competent scientific institutions in those countries which use Cyrillic alphabets, i.e. the U.S.S.R., Bulgaria and Yugoslavia<sup>1</sup>. I think the Secretariat of the Commission should address corresponding letters to the Academy of Sciences of the U.S.S.R., to the Bulgarian Academy of Sciences, to the Yugoslavian Academy of Sciences and to the Serbian Academy of Sciences, asking their opinion as well as the opinion of their zoological institutions.

The proposals of Drs. A. Almasov and E. Boltovskoy are both very interesting and valuable, but I do not think it would be wise and even fair to decide these questions on the base of individual opinions only. It should not be forgotten that Cyrillic alphabets are used by over 200 million people and by thousands of zoologists. Moreover, it is not only the question of the five Slavonic languages, i.e. Russian, Ukrainian, Belorussian, Bulgarian and Serbian, but also of many other languages on the vast territories of the U.S.S.R., which were able to develop their literature since the Revolution of 1917 and which use alphabets based to a greater or smaller extent on the Cyrillic alphabet.

<sup>1</sup> For the action taken by the Office of the Commission with a view to eliciting the views of the leading institutions concerned in the Slav-speaking countries see paragraph 6 of Document RR/1 and the list of Institutions given in Part (b) of the Appendix to the paper so numbered.

## (b) Letter dated 29th April 1955

I was very glad to learn that you quite agree with me as to the consultation with competent scientific institutions in the U.S.S.R. and other interested countries in questions concerning transliteration from the Cyrillic into the Latin alphabet.

Personally I have also some technical remarks in connection with the schedule proposed by Drs. A. Almasov and E. Boltovskoy (*Bull. zool. Nomencl.* 11 : 7-18), which I would like to communicate to you and to put under discussion. They are as follows :—

- (1) Letter 8 should be transliterated in Russian words *je* and not *e* ; it has the phonetic value of *e* only in Ukrainian, but not in Russian and in Bjelorussian.
- (2) Letter 10 should be transliterated *jo* ; in both these cases, i.e. letters 8 and 10, *j* has the phonetic value which it has in German or in the Slavonic languages using the Latin alphabet (as Polish, Czech, etc.).
- (3) Letter 34 should be transliterated simply by *c*, giving to it the phonetic value which it has in such German words (names) as Cäcilie, Cäsar, or in the Slavonic languages using the Latin alphabet, i.e. the phonetic value of *ts*.
- (4) The letter 39 can be simply omitted in all Russian words ; it is used only to indicate that the preceding consonant is not palatalized, and there will be no such danger when the word will be transliterated into the Latin alphabet.

**DOCUMENT 26/7****Comment by Dr. JOSHUA L. BAILY, Jr. (San Diego, California, U.S.A.) on the Almasov/Boltovskoy Plan for the transliteration of Cyrillic Characters**

(Letter dated 7th May 1955 addressed to Dr. Alexey Almasov)

Your very thorough and carefully thought out article in the *Bulletin of Zoological Nomenclature* (11 : 7 *et seq.*) concerning the transliteration of words from languages using the Cyrillic alphabets is very thought-provoking. The need for a standard method of transliteration is quite obvious, not only for words taken from the Slavic languages, but for the languages of Western Europe which use the Latin alphabet supplemented by additional letters which do not occur in Latin.

I find myself in rather fundamental disagreement with you, however, when you recommend that the system should be orthographic rather than phonetic. Most of the spoken languages of Europe (all of those with which I am familiar, except English) are phonetic, which is a great help to anyone who has to use them. The one exception is English, in which etymological spelling is used. Since so many words in common use in English have come originally from other languages, the use of orthographic spelling has brought about the representation of many different sounds by the same letter or combination of letters, and also of the representation of the same sound by different letters or combination of letters, with a most unsatisfactory resulting confusion. It would be most disastrous if such a condition were allowed to develop in modern scientific Latin, but this is almost sure to happen, if the system of transliteration adopted by the International Commission should be orthographic rather than phonetic.

The only advantage that I can see in using an orthographic system is that the letters of all five Cyrillic alphabets can be entered in one column, whereas in a phonetic system each alphabet would need a separate column. But this would offer no insuperable difficulty. As a matter of fact, the most important of all the Cyrillic alphabets was not used in compiling the tables in your article. I refer of course to the Greek alphabet. It might be maintained that since the

Greek alphabet had been in use for many centuries before the birth of Cyril, that it should not be called a Cyrillic alphabet, but that is an academic argument. When Cyril invented the alphabet that bears his name he used the characters of the Greek alphabet as far as he could to designate the usual sounds associated with them, and going to the old Phenician alphabet to get signs, to represent sounds that did not occur in Greek, so that the Greek and Cyrillic alphabets consist largely of the same letters.

In Greek the letter  $\theta$  is always transliterated by TH so that the sound may be preserved. The same letter occurs in the Cyrillic alphabets, and if the system of transliteration is to be orthographic the same digraph should be used. But your scheme provides that  $\theta$  be represented by F. This is not an orthographic but a phonetic equivalent. I agree with you completely that  $\theta$  in Slavic languages should be transliterated by F in order to preserve the sound, but I think it should be transliterated by TH in Greek words for the same reason. It would be quite impractical to change TH to F in all words of Greek origin in scientific Latin. The use of TH must be considered a fixture.

Consequently I must also disagree with your recommendation to use TH as the orthographic equivalent of ІІ the sound of which is altogether different. The latter letter should be rendered as TS in order to preserve the sound. Your objection to the use of TS on the ground that many Slavic words contain this digraph which would be transliterated in the same way seems immaterial to me, but if it is a legitimate objection it might be satisfied by the use of TZ for ІІ.

Again, the Greek letter X has always been transliterated by CH in Latin. I agree with you that the digraph KH is more logical, but to change the spelling of every Latin word of Greek origin to comply with this would be quite impractical. I therefore, recommend the use of CH in Slavic words as well as in Greek words, since the sound is the same in both cases. If the sound were different I would recommend KH for Slavic words.

If this suggested change is accepted it will be necessary to abandon the digraph CH as the equivalent of ІІ. It would better be represented by the trigraph TSH. I may say that I do not like the digraph CH because it is ambiguous. In English C may be either a mute or a sibilant. The following vowel always determines which, so there is no confusion. H following C is used both to fricativize the mute and to dentalize the sibilant. Any vowel may follow the digraph in either case, so that it is impossible to tell in which sense it is used. That is why I prefer TSH for the dentalized sibilant.

The letter B in the Cyrillic alphabets is orthographically the same letter in Greek, which is transliterated as B. But it has not the same sound. I agree with you that in the transliteration of Slavic words it would be better to represent it by V but this is its phonetic, not its orthographic, equivalent.

The difference in sound of the myakhy-znak and the tvyordy-znak is so slight that I would recommend dropping these altogether in transliteration.

There are some other details which I think capable of improvement, but all of them have come about by the attempt to make the transliteration orthographic instead of phonetic. After all, a word is a sound pronounced by a speaker; it is not a collection of symbols on a printed page. The object of the printed symbols is to represent the spoken sounds. When they cease to do this, their value disappears.

The advantage of writing scientific terms in Latin is that this is supposed to be something of a universal language, understood by scientists all over the world. The practice of scientists of pronouncing Latin words in accordance with the orthography of their own language is not to be recommended, as it frequently makes it impossible for scientists who speak different languages to understand each other. If a phonetic system of transliteration were adopted, the original pronunciation would be preserved, and would be universally understood.

Of course, the important thing to achieve is a system of transliteration, the rules of which will be simple enough to be remembered so that any one can understand it, whether it is orthographic or phonetic. For my own part, I would much prefer a phonetic system, but of course I shall abide by the decision of the Commission. I hope you do not mind my having expressed myself so vigorously.

**DOCUMENT 26/8**

**Views of the Academy of Sciences of the U.S.S.R. on the Almasov/  
Boltovskoy Plan for the transliteration of the Cyrillic Characters**

(Letter dated 5th September 1955 from D. M. Steinberg,  
Vice-Director of the Zoological Institute of the Academy of  
Sciences of the U.S.S.R.)

As it is rather difficult for zoologists to discuss the question of transliteration of words written in Cyrillic characters we sent over your letter and the paper of M. M. Almasov and Boltovskoy to the Institute of Linguistics of the Academy of Sciences of the U.S.S.R. so as to have the opinion of this special Institution on behalf of the project.

We have the pleasure to enclose herewith a copy of the answer we received a few days ago, which we hope may be of some use to you.

As to what concerns the opinion of the Zoological Institute of the Academy of Sciences of the U.S.S.R., we find the scheme proposed by M. M. Almasov and Boltovskoy, in the part concerning the Russian alphabet, quite acceptable with the exception of the letter No. 39 ('b), which we think more desirable to succeed by the sign ('), when used in the middle of words and omit, when used at the end of words.

At the proposals of M. M. Almasov and Boltovskoy concern letters used not only in the Russian alphabet, but also in the Ukrainian and Belorussian languages we would think it very desirable if you would find the possibility to send a request to the Ukrainian Academy of Sciences (Kiev, the Ukrainian S.S.R.) and the Belorussian Academy of Sciences (Minsk, the Belorussian S.S.R.).

## ANNEXE TO DOCUMENT 26/8

Opinion of the Bureau of the Section of General and Comparative Linguistics of the Institute of Linguistics of the Academy of Sciences of the USSR (Moscow) on the project of the System of transliteration of words normally written in Cyrillic characters proposed by the International Commission on Zoological Nomenclature.

1.- The project of transliteration proposed by MM. Almasov and Boltovskoy cannot be recommended in view of the following:

- 1) it runs contrary to the international project worked out by the ISO (the latest version we know of is of May 1954);
- 2) in its character it is not international but regional, as it is chiefly based on the Anglo-American system of RGS;

2.- The divergencies with the ISO system come up to the following :

- 1) the use of digraphs for hissing consonants: No 11 zh - **\*** , No 35 ch - **ч** , No 37 sh - **ш** and No 34 th - **щ** as well;
- 2) the use of trigraphs : No 29 chj - **чј** , No 36 dzh - **џ** ;
- 3) the use of tetragraphs : No 38 shch - **шч** ;
- 4) the symbols : No 5 gh - **ѓ** , No 9 jeh - **ѓ** , No 10 ew - **ë** , No 14 ih - **и** , No 31 uh - **ѹ** , No 39 w - **ԝ** (evidently not only for Russian, but for Bulgarian texts as well) , No 42 je - **ј** No 43 eh - **ӗ** .

Altogether 15 cases out of 48.

3.- These discrepancies reveal complete disregard for the traditions of Latin transliteration of Slavonic texts (for ex.: No 34 th - **щ** , No 10 ew - **ë** , No 14 ih - **и** , No 31 uh - **ѹ** , No 43 eh - **ӗ** , No 39 w - **ԝ** ).

4.- The fact that the linguistic and graphic treatment of the matter is not thorough in the proposed system is revealed, for instance, in the following cases :

- 1) No 39 w - **ԝ** ; in the Russian language, the "separating symbol" **·** in the middle of words marks the "j-like" beginning of the following vowel (thus **օժեմ** - objom , etc..) It would be difficult to conceive transcriptions with "w" instead of "·" and "ew" for **չ է չ** (obwewm). On the other hand, in Bulgarian texts "·" stands for "X", which is a separate vowel. According to the ISO transliterations scheme, it should be rendered as "á".
- 2) The symmetrical and parallel symbols for occlusive palatal consonants in the Serbian language, **Ђ** - voiced and **Ћ** - voiceless, become unsymmetrical : No 7 **Ђ** - dj , No 29 **Ћ** - chj..
- 3) The proposal of using "h" and "w" as diacritic signs in digraphs and trigraphs is quite inconsistent : No 31 uh - **ѹ** (why not "uw", which might be used provided digraphs were generally accepted)

No 34 th - 4 , No 43 eh - 9 , No 14 ih - i , No 48 yh - X and  
No 9 yeh - e on one hand, and No 10 ew - e on the other.

5.- The Institute of Linguistics of the Academy of Sciences of the USSR, basing itself on the traditions of the Czech Latin alphabet ("latinitsa") widely employed for Latin transcription of sounds of the Slavonic languages in the linguistic literature, as well as on the traditions of the "Academical transcription of Russian proper names with Latin letters" of 1906 (improved version of 1925 in accordance with the new Russian orthography), has proposed its own project of Latin transliteration of languages using the Cyrillic alphabet. This project in the main features coincides with the ISO project and differs from it only in the following points:

I S O

The Institute of Linguistics of the Academy of Sciences of the USSR

r	Ukrainian and Byelorussian	- g	h
x	h (and optionally ch, kh )		ch
E	always e		e - after consonants; je - at the beginning, after vowels, after ё and ё .
Ё	.. E		'o - after consonants; jo - at the beginning, after vowels, after ё and ё .
ю	always ju		'u - after consonants; ju - at the beginning, after vowels, after ё and ё .
я	always ja		'a - after consonants; ja - at the beginning, after vowels, after ё and ё .
и	always i		i - at the beginning; after consonants and vowels; ji - after ё .
ю	Russian : "or"-in the middle omitted at the end		always omitted
б	'or		at the end and before consonants; omitted before vowels.
б	Serbian	lj	l'
б	"	nj	n'

After a perusal of the second version of the ISO project (May, 1954) and in connection with the above mentioned divergencies, the

Institute of Linguistics forwarded in September 1954 its suggestions to the ISO through the Committee for Standardization attached to the State planning Commission of the USSR.

6.- The Institute of Linguistics is of opinion that it would be very desirable if the International Commission would take acquaintance with the latest project of ISO (Geneva, 39, Route de Malagnon) and would coordinate the conclusions, which should have international significance, with the International Organization for Standardization (ISO).

Signed      (A. A. Reformatzky)

DOCUMENT 26/9

Comment on Almasov/Boltovskoy Plan relating to the transliteration of  
Cyrillic Characters

By LEO SHELJUZHKO

(*Zoologische Sammlung des Bayerischen Staates, Entomologische Abteilung,  
München, Germany*)

(Letter dated 9th December 1955)

Besten Dank für Ihr freundliches Schreiben vom 17.XI., wie auch für die Zusendung des Sonderdruckes des Artikels von Dr. Almasov und Boltovskoy mit den Vorschlägen zur Transkription des cyrillischen Alphabet. Leider kann ich mich manchen Ansichten der genannten Autoren nicht anschliessen. Deshalb habe ich einen Artikel verfasst, in dem meine entsprechenden Ansichten dargelegt sind und habe diesen, Ihrem Vorschlag entsprechend, Dr. Almasov zugesandt. Eine Abschrift davon erlaube ich mir diesem Brief beizulegen.

Über die internationale Transkription russischer Worte

(Zum Artikel von A. Almasov und E. Boltovskoy: "On the treatment of words written with cyrillic characters, for the purposes of zoological nomenclature, bibliography, reference indices, etc." (Bull. zool. Nomencl., Vol. 11, Part 1, 1955)).

1. Allgemeine Bemerkungen

1. Im vorliegenden Artikel wird die Transkription nur russischer Worte berücksichtigt. Die anderen slavischen Sprachen, die sich des cyrillischen Alphabet bedienen, sind mir nicht genügend bekannt, um über deren Transkription zu diskutieren; auch wage ich nicht zu entscheiden, ob sie alle bei der Transkription auf einen Nenner gebracht werden können. Gewiss wäre dies an und für sich erwünscht, doch, meiner Meinung nach, nicht unbedingt erforderlich, jedenfalls nicht auf Kosten einer falschen Aussprache der transkribierten Worte.

Wenn sich Almasov und Boltovskoy für eine einheitliche Transkription der cyrillischen Buchstaben aller 5 slavischen Sprachen einsetzen, so sehen sie doch selbst ein, dass hier eine absolute Konsequenz nicht gut möglich ist und dass man schliesslich doch gewisse Eigentümlichkeiten der verschiedenen Sprachen berücksichtigen muss. Das betrifft (l.c., p. 16, Nr. 26) die russischen Buchstaben: "ě", "і", "ѣ" und "ѣ". Nun glaube ich, dass dieser Weg unvermeidlich ist. Meiner Meinung nach müsste man also für die fünf in Frage kommenden slavischen Sprachen entsprechende Transkriptionsschemen aus-

arbeiten und dann diese Schemata miteinander vergleichen und die Eigentümlichkeiten jeder Sprache berücksichtigen. Die Unterschiede werden nicht gross sein und nur einzelne Buchstaben betreffen. Es ließe sich dann ein allgemeines Schema aufbauen, in dem die Abweichungen der einzelnen Sprachen notiert wären. Obwohl dies die Sache auch etwas komplizierter würde, wäre in solcher Weise ein wirklich gut gebräuchliches Schema geschaffen, anstatt eines einfacheren, da alle Eigentümlichkeiten der Sprachen nivelliert und daher unverständlich und kaum gebräuchlich wäre. Wenn die erwähnten Autoren die Vorteile eines allgemeinen Schemas für die Bibliotheken hervorheben, da solch ein Schema die Möglichkeit geben würde, die in cyrillischen Schrift geschriebene Worte zu transkribieren, ohne die entsprechenden Sprachen zu kennen (*l.c.*, p. 13, Nr. 15 (1)), wäre dagegen einzuwenden, dass man wohl annehmen muss, dass eine Bibliothek mindestens wissen sollte, in welcher Sprache eine Schrift verfasst ist (was ja eine minimale Forderung wäre!) und wenn dies bekannt ist, so hätte es auch keine Schwierigkeiten, in der Transkription dem entsprechenden Schema zu folgen.

2. Vollkommen einverstanden bin ich mit den erwähnten Autoren in der Ablehnung der diakritischen Zeichen. Erstens aus dem Grunde, da diese nicht ohne Weiteres verständlich wären, zweitens darum, da die meisten Druckereien über solche Zeichen nicht verfügen und also deren Anwendung, praktisch genommen, nur in den wenigen Fällen möglich wäre, wodurch das ganze Transkriptionssystem zu Fall gebracht wäre.

3. In diesem Artikel geht es also darum, russische Worte durch lateinische Buchstaben zu transkribieren, wobei als Grundlage dieser Transkription die Empfehlung aufgefast wird, die als "Anhang G" der Zoologischen Nomenklaturregeln (Richter, 1948, p. 210) angeführt ist: "Man drücke . . . möglichst genau die örtliche Aussprache der Namen aus, ohne jedoch eine vollständige Wiedergabe der gehörten Laute in Anspruch zu nehmen".

Bei einer Transkription müssen wohl vor allem die Interessen der Internationalen Nomenklatur berücksichtigt werden und hier geht es in erster Linie um die Wiedergabe von Eigennamen, sei es Personennamen oder geographische Bezeichnungen. Es ist verständlich, dass diese Namen auch in phonetischer Hinsicht der Originalaussprache möglichst genau entsprechen sollen und nicht durch eine primitive, alles nivellierende Schreibweise verunstaltet werden.

Es handelt sich also nicht nur darum, russische Buchstaben durch lateinische zu ersetzen, sondern auch darum, die Phonetik nach Möglichkeit zu berücksichtigen. Dies widerspricht den Ansichten von Dr. Almasov und Boltovskoy (*l.c.*, p. 13, Nr. 15 (1)), die behaupten, dass "The system must be orthographic and not phonetic". Diese Behauptung steht nicht im Einklang mit der Empfehlung der Nomenklaturregeln, die oben zitiert wurde.

Wenn die erwähnten Autoren die Phonetik auch ablehnen oder ihr jedenfalls eine zweitrangige Bedeutung zumessen, sagen sie doch (*l.c.*, p. 14, Nr. 15 (3) : “ . . . nevertheless it is necessary to take at the basis the phonetic similarities with some of existing language. We have decided to choose English for this purpose the most suitable”. Das wäre eine Ansicht, die keinesfalls einläuchtend ist. Es ist gewiss klar, dass man die Aussprache der cyrillischen — lateinisch transkribierten — Worte an die Aussprache einer bestimmten Sprache binden muss, ebenso klar ist es aber, dass diese Sprache nur die lateinische sein kann — eine neutrale Sprache, die in der Nomenklatur eine weitgehende Verwendung findet und die es auch jedem ermöglichen wird, die lateinisch transkribierten Worte ohne Kenntniss der slavischen Sprachen richtig auszusprechen. Es wäre aus manchen Gründen durchaus nicht angebracht, eine moderne Sprache hier zu benutzen, da jede von diesen ihre Eigentümlichkeiten hat, die nicht im Einklang mit der lateinischen stehen. Ganz besonders abwegig wäre die Anwendung der englischen Sprache, die besonders viele Eigentümlichkeiten in der Aussprache besitzt, die weder mit den slavischen Sprachen, noch mit der lateinischen Sprache etwas gemeinsames haben.

Es wäre zu bedenken, dass die Eigentümlichkeiten der englischen Aussprache nicht nur einige umstrittene Buchstaben, sondern auch viele andere betreffen. Sollte man die englische Transkription für einige Buchstaben annehmen, so wäre damit die Tendenz gefördert, auch die übrigen in englischer Leseart auszusprechen, womit die Originalaussprache gänzlich verunstaltet wäre. Manche Engländer und Amerikaner haben freilich auch jetzt die Gewohnheit, lateinische Namen auf englische Art auszusprechen, doch muss man zugeben, dass dies eine schlechte Gewohnheit ist und man sich diesem Fehler unmöglich anschliessen kann, geschweige den ihn zum Prinzip zu erheben !

Diese Entgegnung gilt selbstverständlich auch dem Vorschlag von Almasov und Boltovskoy (*l.c.*, p. 12, Nr. 13) : “This solution is all more adequate as it is already used in English transliteration practice where the combinations ‘ch’, ‘sh’, ‘zh’, and ‘kh’ are employed”. Meine Einwände beschränken sich hier auf zwei Fälle, nämlich auf die Kombinationen “ch” und “kh”. Das “ch” ist in der lateinischen Sprache gebräuchlich, kann also in transkribierten Wörtern nur in einer Weise verwendet werden, die der lateinischen Aussprache entspricht, also als russisches “x” und keinesfalls als russisches “ч”, wie das von den genannten Autoren vorgeschlagen wird. Wenn in englischen Wörtern, die selbstverständlich ihre Originalschreibweise beibehalten, dies “ch” als russisches “ч” ausgesprochen wird, und in der französischen als russisches “щ”, so ist es etwas ganz anderes und macht auch keine Schwierigkeiten bei der Aussprache, vorausgesetzt, dass man weiß, dass es sich um ein englisches oder französisches Wort handelt.

Das “kh” ist, wie es auch in den Nomenklaturregeln angegeben wurde (Richter, 1948, p. 210) ein weicher arabischer Kehllaut, der etwa einem “gh”

entspricht. Es würde sehr verwirrend wirken, sollte man plötzlich dieses "kh" dem russischen "x" gleich stellen.

Wegen den zwei weiteren Kombinationen hätte ich keine Einwände. Das "zh" ist weder in der lateinischen noch in der englischen Sprache gebräuchlich; seine Anwendung für das russische "ж" ist künstlich und bedingt, womit man sich jedoch abfinden muss, zumal wir in der lateinischen Sprache keinen entsprechenden Äquivalent finden. (Dasselbe gilt auch für die Anwendung des "y" für das russische "ы"). Auch gegen die Anwendung von "sh" für das russische "ш" wäre nichts einzuwenden: das "sh" kann wohl kaum anders als "sch" ausgesprochen werden, ist also allgemein verständlich und hat sich auch seit langer Zeit in der Transkription fest eingebürgert.

Wenn sich die genannten Autoren für die englische Sprache so einsetzen, so wäre es nur logisch, die englische Transkription als internationale anzunehmen — ein Vorschlag, der aus vielen Gründen kaum eine allgemeine Anerkennung finden könnte und bei dessen Durchführung man schon wegen der weitgehenden Eigentümlichkeiten der englischen Aussprache auf unüberwidliche Schwierigkeiten stossen würde.

4. Es wäre wohl angebracht, bei der Aufstellung einer internationalen Transkription nach Möglichkeit das beizubehalten, was in dieser Hinsicht bereits getan wurde und dies jedenfalls nicht einfach zu ignorieren. Man muss bedenken, dass die Fragen der lateinischen Transkription russischer (und überhaupt cyrillischer) Worte nicht erst heute aufgetaucht sind. Es sind vielmehr Fragen, mit denen man sich schon Jahrzehnte befasst hat und die Ergebnisse dieser Arbeit müssen wenigstens genau untersucht und nicht ohne schwerwiegender Gründe einfach verworfen werden, schon deshalb nicht, da manche dieser Ergebnisse sich inzwischen in der Praxis fest eingebürgert haben und jede Änderung eine Umwälzung zur Folge hätte, die nicht gerade wünschenswert wäre, besonders dann nicht, wenn sie keiner Notwendigkeit entspricht.

Sollte man sich die Mühe geben, die russische wissenschaftliche Literatur des letzten Jahrhunderts durchzusehen, so könnte man die Evolution feststellen, die die Transkription russischer Worte erfahren hat. Es ist gewiss hier nicht der Platz auf die Einzelheiten einzugehen und diese Evolution zu verfolgen. Ich beschränke mich auf die Erwähnung der Arbeit von N. Kusnezov (Faune de la Russie, Insectes Lépidoptères, Vol. I, Livr. 2, p. CCCLXXXVII. Leningrad. 1929), in der u.a. die lateinische Transkription von mehreren russischen Buchstaben angeführt ist, nämlich: "в = v, ж = zh, x = ch, ц = tz, ч = tsh, ш = sh, щ = stsh, ю = ju, я = ja". Es ist dabei zu betonen, dass diese Schreibweise nicht von Kusnezov *ad hoc* erfunden wurde, sondern nur eine Zusammenfassung dessen darstellt, wozu die russischen Autoren im Laufe von Jahrzehnten gelangt sind. Nach dem Erscheinen dieser Arbeit haben sich wohl die meisten russischen Autoren an diese Transkription gehalten und man kann wohl annehmen, dass sie jetzt eine allgemeine Anerkennung findet. Diese Transkription hat sich gut bewährt, widerspricht

keinesfalls den Forderungen der Nomenklaturregeln und es besteht durchaus kein Grund sie umzustossen und durch eine andere, der englischen Sprachweise entsprechende zu ersetzen.

Es besteht übrigens die Gefahr, sollte man für die Transkription ein widernatürliches, vollkommen künstliches System vorschlagen, wie dies die englische Schreibweise wäre, dass manche Autoren sie nicht akzeptieren würden, und dass daher die erstrebte Einigkeit nicht erreic wäre.

Nach diesen allgemeinen Bemerkungen gehe ich jetzt zur Transkription einzelner Buchstaben über, insofern ich mit den entsprechenden Vorschlägen der Herrn Dr. Almasov und Boltovskoy nicht einverstanden bin.

## II. Transkription der einzelnen Buchstaben

1. Das russische "e" entspricht nicht genau dem lateinischen (oder deutschen) "e". Es handelt sich vielmehr um einen jotierten Laut, der wohl am besten durch ein "je" wiederzugeben wäre. Jedoch kommt diese Jotierung nicht immer gleich deutlich zum Vorschein. Besonders fällt die Jotierung auf, wenn das Wort mit einem "e" beginnt, oder auch wenn es inmitten des Wortes, aber vor einem Vokal steht. In diesen Fällen würde es sich empfehlen, es durch "je" wiederzugeben, so z.B. : "Jegorov, Jermolajev, Jershov, Dostoevskij, Jelabuga, Jeletz, Kijev" (nicht : "Egorov, Ermolaev, Ershov, Dostoevskij, Elabuga, Eletz, Kiev"). Dagegen braucht die Jotierung inmitten des Wortes vor einem Konsonanten nicht hervorgehoben zu werden, kann also in diesen Fällen dem lateinischen "e" gleich gestellt werden, wie z.B. : "Tsherskij" (nicht "Tshjerskij").

2. Das verhältnismässig seltene russische "ë" entspricht recht gut dem lateinischen "jo" und wäre am besten so wiederzugeben, z.B. "Orjol". Da sich aber die Schreibweise dabei bedeutend verändert (es kommt ein "o" anstatt des "e"), erscheint es ratsam auch die zweite Schreibweise in Klammern beizufügen, also : "Orjol (Orel)". Der Vorschlag das "ë" dem "e" gleich zu stellen widerspricht der Aussprache. Da aber, wie bereits erwähnt, das "ë" in der russischen Sprache nur eine seltene Erscheinung ist, hat die Differenz keine grosse Bedeutung.

3. Dem Vorschlag das russische "c" durch "s" wiederzugeben, kann man gewiss nur zustimmen, jedoch mit einer Einschränkung. Es entstehen nämlich in den Fällen Bedenken, wo das russische "c" zwischen zwei Vokalen steht. In diesen Fällen besteht die Gefahr, dass das "s" als russisches "z" ausgesprochen wird. Um das zu vermeiden erscheint es ratsam, es hier zu verdoppeln, so müsste man schreiben : "Lomonossov", "Ossa" (anstatt : "Lomonosov", "Osa").

4. Wie es bereits im allgemeinem Teil erwähnt wurde, entspricht das russische "x" vollkommen dem lateinischen "ch" und kann naturgemäss nur

in dieser Weise wiedergeben werden. Den Vorschlag es durch "kh" wiederzugeben, möchte ich als völlig abwegig bezeichnen, da dies mit der Aussprache durchaus nicht übereinstimmt, wie auch mit den Empfehlungen der Nomenklaturregeln. Also: Cholm, Charkov, Cherson (nicht: "Kholm, Kharkov, Kherson").

5. Das russische "ч" ist eigentlich eine Kombination zweier Buchstaben: "т" und "з", dementsprechend müsste es so transkribiert werden, wie man diese Buchstaben transkribiert, also "tz". Die vorgeschlagene Transkription "th" ist absolut unannehmbar. Sie kann weder mit der russischen noch mit der lateinischen Aussprache in Einklang gebracht werden und auch die englische Aussprache entspricht der russischen nicht genau. Wenn wir z.B. "Tzaritzin" oder "Tzarevokokshajsk" schreiben, so ist dies allgemein verständlich, dagegen aber wäre "Tharithin" oder "Tharevokokshajsk" überhaupt kaum lesbar und sogar für einen Russen unverständlich.

6. Das russische "ч" ist auch nichts weiter als eine Kombination von zwei Buchstaben, nämlich von "т" und "и" uns soll dementsprechend als "tsh" wiedergegeben werden, was auch gebräuchlich ist. Der Vorschlag es durch "ch" zu schreiben, wäre absolut unannehmbar, wie ich es bereits erwähnt habe. Erstens, schon deshalb, da das lateinische "ch" dem russischen "х" entspricht; zweitens, da eine englische Leseart durchaus unangebracht und verwirrend wirken würde. Also: "Tshetverikov, Tshitsherin, Tshita, Tsheljabinsk" (nicht: "Chetverikov, Chicherin, Chita, Cheljabinsk").

7. Das russische "щ" ist wieder eine Kombination zweier Buchstaben, nämlich von "ш" und "щ" und müsste dementsprechend als "shtsh" geschrieben werden. In der Praxis aber wird eine Abkürzung gebraucht und wird dieses "щ" als "stsh" transkribiert. Gegen diese Abänderung wäre nichts einzuwenden, zumal sie die Aussprache nicht betrifft: "shtsh" und "stsh" können nur nahezu identisch ausgesprochen werden. Der Vorschlag, das "щ" als "shch" wiederzugeben beruht auf der nicht annehmbaren Transkription von "щ" durch "ch" und ist daher zu verwerfen. Also, hätten wir: "Stsheelgolkov, Stshogolev, Stshelkanovtzev" (nicht: "Shchegolkov, Shchogolev, Shchelkanovtzev").

8. Das russische harte Zeichen "ъ" kommt für die Transkription nur in den seltenen Fällen in Frage, wo es inmitten der Worte steht. (Am Ende der Worte ist es stumm und braucht nicht transkribiert zu werden. Auch wird es nach der neuen Grammatik hier nicht mehr gebraucht). Es ist gebräuchlich und erscheint auch zweckmässig das "ъ" inmitten der Worte durch einen "ъ" wiederzugeben. Der Vorschlag es durch "w" zu transkribieren (l.c., p. 17, Nr. 26) ist unverständlich, wirkt verwirrend und erscheint völlig zwecklos. Was das bulgarische "ъ" betrifft, so scheint seine Leseart etwas anders zu sein und müsste man sich überlegen, ob man hier nicht eine andere Schreibweise anwenden müsste.

9. Das russische weiche Zeichen "ѣ" macht gewisse Schwierigkeiten und zwar darum, da seine Wiedergabe nicht in allen Fällen notwendig erscheint. Dort aber, wo seine Anwendung nötig ist, wäre es wohl am besten, es durch "ѣ" zu transkribieren, was auch der Praxis entspricht. Dies soll wie am Ende der Worte, so auch inmitten derselben geschehen, so z.B. : "Kazanj, Permj, Obj, Gorjkij" (anstatt : "Kazan, Perm, Ob, Gorkij" wie es oft geschrieben wird). In manchen Fällen aber — nach einem "I" — scheint das weiche Zeichen überflüssig zu sein und könnte wegbleiben, so z.B. : "Olga, Olgopol, Olviopol, Jelisavetpol, Jaroslavl" (anstatt : Oljga, "Olvipolj, Jelisavetpolj, Jaroslavlj"). Wenn aber das weiche Zeichen "ѣ" zwischen dem "I" und einem Vokalen steht, so wäre es unbedingt zu berücksichtigen, z.B. : "Iljinskij, Iljitshev" (nicht : "Ilinskij, Ilitshev"). Der Vorschlag das weiche Zeichen durch ein "ѣ" wiederzugeben ist schon deshalb nicht annehmbar, da das "ѣ" gewöhnlich das harte Zeichen ersetzt und diese Transkription nur eine unnötige Konfusion hervorrufen würde.

10. Was nun die Transkription des russischen "ѣ" betrifft, so wäre es wohl angebracht, es dem russischen "e" gleichzustellen, dass heisst also, es durch "e" oder durch "je" zu transkribieren (am Beginn der Worte und vor einem Vokal). Freilich, auch in manchem anderen Fällen besonders nach einem russischen "и" macht sich das "ѣ" gut bemerkbar und wird auch gewöhnlich durch "je" wiedergegeben, wie z.B. "Dnjepri", "Dnjestr" — eine Schreibweise die sich bereits ziemlich eingebürgert hat. In anderen Fällen aber kommt die Jotierung nur wenig zum Vorschein und entspricht hier das "ѣ" dem "e", wie z.B. "Medvedev" (anstatt "Medvjedev"). Der springende Punkt ist aber, dass das "ѣ" in der neuen russischen Grammatik gestrichen oder genauer gesagt durch das "e" ersetzt wurde. Es wäre daher anzunehmen, dass im Weiteren auch die meisten Russen nicht mehr wissen werden, welche Worte mit "ѣ" geschrieben wurden. Es erscheint daher am zweckmässigsten, wenigstens für unsere praktischen Zwecke, auf die schliesslich gering Aussprache-Unterschiede des "ѣ" zu verzichten und es dem russischen "e" gleich zu stellen.

11. Das russische "ѧ" entspricht der Aussprache nach ziemlich genau dem lateinischen "e" und kann ohne Weiteres durch "e" wiedergegeben werden. Der Vorschlag es durch "eh" zu transkribieren ist unverständlich, da der dadurch entstehende Laut dem "ѧ" nicht entspricht. Wenn wir das russische Wort "ѧxo" als "Echo" schreiben, so erscheint seine Leseart recht deutlich und der russischen Leseart hahe, dagegen "Ehcho" ist eine unnötige Komplizierung der Schreibweise, die bei Aussprache nur unnütz verwirrt.

12. Wegen dem russischen "и", d.h. wegen seiner Gleichstellung dem russischen "и" und dementsprechend dem lateinischen "i" bin ich mit den Ansichten der genannten Autoren (*l.c.*, p. 16, Nr. 26) vollkommen einverstanden.

III. Vergleichstabelle der Transkription der russischen Buchstaben laut meinen Vorschlag und dem von Almasov & Boltovskoy

Russisches Alphabet

Lateinische Transkription

Mein Vorschlag von  
Vorschlag Almasov &  
Almasov & Boltovskoy

a .....	ä .....	a
đ .....	b .....	b
ѣ .....	v .....	v
ѣ .....	g .....	g
ѣ .....	d .....	d
e .....	e, je .....	e
ö .....	jo .....	e
ѣ .....	zh .....	zh
ѣ .....	z .....	z
ѣ .....	i .....	i
ѣ .....	i .....	i
ѣ .....	j .....	j
ѣ .....	k .....	k
ѣ .....	l .....	l
ѣ .....	m .....	m
ѣ .....	n .....	n

Russisches  
AlphabetLateinische Transkription  
Mein  
Vorschlag von  
Vorschlag Almasov &  
Boltovskoy

о .....	о .....	о
н .....	п .....	п
р .....	р .....	р
с .....	с, ss .....	с
м .....	т .....	т
ъ .....	у .....	у
ѣ .....	f .....	f
х .....	ch .....	kh
ѣ .....	tz .....	th
ѣ .....	tsh .....	ch
ш .....	sh .....	sh
ѣ .....	stsh .....	shch
ѣ .....	' .....	w
ѣ .....	y .....	y
ѣ .....	j .....	'
ѣ .....	e, je .....	e
ѣ .....	e .....	eh
ѣ .....	ju .....	ju
ѣ .....	ja .....	ja

**DOCUMENT 26/10****Comment on the Almasov/Boltovskoy Plan for the transliteration  
of Cyrillic Characters****By H. S. BUSHELL***(Commonwealth Institute of Entomology, London)**(Letter dated 21st February 1956)*

This scheme is proposed both for the needs of zoological nomenclature (as specified by the Commission) and for the more varied needs of bibliography, indexes, etc. It seems to me, however, that these two sets of needs are different in character, and that any scheme designed to satisfy both cannot completely satisfy either. I will, therefore, comment on the two aspects separately.

**Bibliography and Indexing**

The needs that a scheme for this purpose has to satisfy are set out on page 4 of the transliteration system published by the Royal Society in 1953. I may recall that, in order of importance, they are

- (1) Avoid ambiguity completely even for those who do not know any of the languages from which transliteration is made (demonstrated by back-transliteration).
- (2) Make names that can be indexed and can be found in an index.
- (3) Do not use diacritics not available to English printers.
- (4) Indicate pronunciation, so far as may be possible after requirements 1-3 have been fulfilled.

The Almasov-Boltovsky scheme fulfils the third of these requirements completely, but it does not fulfil the first, second or fourth. It does not fulfil the first, because many of its diagraphs (or other combinations of letters are

made up of letters that are also used singly for other letters. Most (but not all) of these diagraphs include the letter *j*, and as regards the ones that do, the authors write (p. 15, para. 19) "such criticism would be justified if such double usage would be a handicap for 'inverted transliteration'. However, in all five Slav languages corresponding sounds are represented in an absolutely definite way, thus eliminating the possibility of confusion". This means that there is no confusion for those who know the practices of the five languages, but complete confusion for those who do not, and the latter include the great majority of scientific workers in western Europe.

The scheme does not fulfil the second requirement (indexing) because it introduces a number of letters that are not to be pronounced but function only as "supplementary signs". These letters would cause words to occupy unexpected positions in an index and hence be difficult to find. The scheme does not fulfil the fourth requirement (pronunciation) because some of its diagraphs and other combinations are obviously used to show pronunciation completely (e.g. *sh* [no. 37]), some show pronunciation in part (e.g. *chj* [no. 29]), some show it for one language but not another (*shch* [no. 38] is correct for Russian, but is *sht* in Bulgarian), and some do not show it at all (e.g. *ew* [no. 10] or *th* [no. 34]). The use of *th* for no. 34 is also unfortunate in a special way: no. 34 is a common Russian letter, pronounced *ts* as in "bits" or "tsetse"—it is the first letter of the word *tsar*. When the Royal Society's system was being prepared, its transliteration (and the avoidance of resulting ambiguity) was discussed with the Russians, the Yugoslav embassy and Sir Ellis Minns of the British Academy, and they all refused to accept any alternative to *ts*.

#### Zoological Nomenclature

The desiderata for the name of a genus or species appear to be that it should be latinised so as to be easy to print and pronounce and should not be made longer than need be. Back-transliteration (of "Cyrillic-derived" names) is not necessary and not possible. It is not necessary because, for example, one does not need to know in whose honour a species was named in order to find its original description. [What one does need to know is the name of its author, and this should therefore be transliterated by an unambiguous bibliographical system.] It is not possible, because the Commission does not propose any change in existing names that do not include diacritics, and as such names (e.g. *tschitscherini* or *latyschewi*) have been transliterated by a variety of systems, they could not be back-transliterated by any one system. It is not desirable to base zoological names on bibliographical transliteration systems, because those would make the names too complicated. The Royal Society's system would be unsuitable because it contains a few diacritics, and the scheme of Drs. Almasov and Boltovskoy would increase the length and com-

plexity of many names and render them difficult to pronounce, because it would introduce into them additional letters intended to be mute and to act as supplementary signs. It may perhaps be pointed out that the ew in the *latyschewi* mentioned above is the German transliteration of the two letters that we represent by ev, whereas the ew of the scheme represents a single letter with w as a supplementary sign. A far simpler system could be devised for zoological nomenclature, provided that its use were strictly confined to this purpose (it would be disastrous for bibliography). In this connection, the Commission's proposals have to be considered under two heads :—

(1) **Names that have already been published.** Here the zoologist has to modify a name that is already in Latin letters, because some of them have diacritics. It is of little use to tell him what to do with Cyrillic letters, because it may not be possible to back-transliterate the name and so know what the Cyrillic letters were. He needs to be told what to do with the Latin letters that have diacritics ; the instruction should be something like "change č into ch, š into sh, etc.". The diacritic letters to consider are those given in the table on the last page of the Royal Society's system, but there would not be so many of them if the obsolete letters were omitted. Moreover the troublesome digraph šč (Russian) and št (Bulgarian) need not be dealt with at all, because the right alteration, to shch (Russian) and sht (Bulgarian), will result if the instructions for š and č as individual letters are followed.

(2) **Names to be made for the future.** A transliteration system is needed here, and it needs to be simpler than published ones. A simple one could be devised provided that it was agreed that possibility of back-transliteration is not a factor. It could be based primarily on the use of y with all the sounds it has in English, e.g. Yugoslavia (consonantal), Lysenko (vowel) and Boltovskoy (component of diphthong like English "boy").

Finally it seems to me that the Commission must decide which alphabets it should cover before it decides details of transliteration. The modern alphabets in which the Cyrillic letters are used are Russian, Bulgarian, Serbian, Ukrainian, Belorussian and Macedonian. The Royal Society's system was restricted to the first three of these six, because it was thought that these were the only ones in which matter of scientific importance was likely to be published, and additional alphabets meant additional complexity. Drs. Almasov and Boltovskoy include all except Macedonian, but if scientific matter were to be published in any of the last three languages, it would perhaps be more likely, for political reasons, to be in Macedonian, which the Yugoslavs wish to encourage, than in Ukrainian or Belorussian, which Soviet Russia apparently does not. I do not, of course know which Cyrillic alphabets the Commission will wish to consider, but a further point that troubles me somewhat is whether it has

considered the problem of the alphabets of the Slav countries that use Latin letters but have diacritics on or under some of them. This is of course not a problem of Cyrillic transliteration but solely one of diacritics,. The Slav-Latin alphabets are Croat, Slovenian, Czech, Slovak and Polish. The first two would present little difficulty, but the last three have a number of diacritics additional to, and more difficult than, those that are concerned in Cyrillic transliteration. I should think that it is much more likely that a species will be named after, and in the Latin alphabet of, a Czech or Pole than that it will be named after, and also in the transliterated alphabet of, a native of the Ukraine or Belorussia.

## DOCUMENT 26/11

**Comment on the Almasov/Boltovskoy Plan for the transliteration  
of Cyrillic Characters**

By P. J. M. GEELAN

*(London)*

(a) Letter dated 20th November 1956

The Cyrillic alphabets most likely to be involved in zoological names are, I imagine, Russian, Bulgarian and Serbian. The systems recommended by my Committee for the transliteration of Russian and Bulgarian are identical with those used officially in the United States. These were developed principally with the idea of the romanization of geographical names in mind, and you will notice that they employ a minimum of diacritical marks (in practice the umlaut can be omitted from Russian ē in transliteration, leaving only Bulgarian ū, in which the short sign should be retained. Anglo-American official practice is also uniform in the treatment of Serbian : this is to transliterate it into the Croat roman alphabet, which has a one-to-one correspondence with Serbian Cyrillic. I would draw your attention here to the dangers of using any other method of transliterating Serbian ; for all practical purposes Serbo-Croat is a single language which may be written in either roman or Cyrillic letters. The existence of two roman forms of Serbian names can only lead to complete confusion.

With regard to your particular problem, one's first thought is that the International Congress of Zoological Nomenclature should consider adopting an internationally accepted system of Cyrillic transliteration, such as that recommended by the International Standards Organization (details of this are obtainable from the British Standards Institute), which deals with Ukrainian and White Russian as well as the three languages mentioned above.

The difficulty about the I.S.O. transliteration from your point of view, however, is that it involves extensive use of diacritical marks (č, š, ž, etc.). It would of course be possible to accept the I.S.O. system without its diacritics,

but the omission of diacritics in transliterated scripts is not at all comparable with the ignoring of them in a roman alphabet, and I would strongly advise against this course.

The best chance of resolving your problem satisfactorily seems to me to lie in getting the Congress to accept for international zoological use one or other of the national transliteration systems of member countries. The choice would presumably lie between French, German and Anglo-American systems. Allowing that the desideratum is the least possible use of diacritical marks, then the flexibility of the English alphabet in general permits a more precise and less ambiguous romanization than does French or German.

(b) Letter dated 28th November 1956

I read Almasov's paper on the transliteration of Cyrillic with great interest. The system he proposes is of course open to many objections (to apply it to Serbian, for instance, would be dangerously misleading), but it demonstrates quite clearly the difficulty of finding one general scheme for transliterating all Cyrillic alphabets. However, given the three impossible requirements of clerical applicability to all Cyrillic alphabets, the non-use of diacritical marks, and reversibility (to the original), then it seems to me that the authors have produced what is probably as good a solution as could be devised.

## DOCUMENT 26/12

The System for the transliteration of Cyrillic Characters recommended by the Royal Society in its publication entitled "The Transliteration of Russian, Serbian and Bulgarian for Bibliographical Purposes"

TABLE I  
THE RECOMMENDED SYSTEM - CYRILLIC- ENGLISH

No.	Letter	Language	Transliteration	No.	Letter	Language	Transliteration
1	А а	RSB	a	24	С с	RSB	s
2	Б б	RSB	b	25	Т т	RSB	t
3	В в	RSB	v	(25+24)	ТС тс	RSB	t-s
4	Г г	RSB	g	26	Ћ ћ	S	t'
5	Д д	RSB	d	27	Ү ү	RSB	u
6	Ћ ћ	S	j'	28	Ф Ӧ	RSB	f
7	Е е	RSB	e	29	Х х	RSB	kh
8	Ӯ ѕ	R	ë	30	҆ ҆	RSB	ts
9	Җ Җ	RSB	zh	31	Ч ч	RSB	ch
10	҃ ҃	RSB	z	32	Ѱ Ѱ	S	j
11	И и	RSB	i	33	҉ ҉	RSB	sh
12	Ҋ Ҋ	R	ı	34	Ҋ Ҋ	R	shch
13	Ҏ Ҏ	R B	ı̄	35	Ҋ Ҋ	B	sht
14	Ҍ Ҍ	S	y	36	Ҋ Ҋ	R	'
15	Ҍ Ҍ	RSB	k	37	Ҋ Ҋ	B	ü
16	Ҍ Ҍ	RSB	l	38	Ҋ Ҋ	R	ȳ
17	Ҍ Ҍ	S	l'	39	Ҋ Ҋ	R B	,
18	Ҍ Ҍ	RSB	m	40	Ҋ Ҋ	R B	ê
19	Ҥ Ҥ	RSB	n	41	Ҋ Ҋ	R	é
20	Ҥ Ҥ	S	n'	42	Ҋ Ҋ	R B	yu
21	Ҩ Ҩ	RSB	o	43	Ҋ Ҋ	R B	ya
22	Ҍ Ҍ	RSB	p	44	Ҋ Ҋ	R	th
23	Ҍ Ҍ	RSB	r	45	Ҋ Ҋ	R	ü
				46	Ҋ Ҋ	B	ú

If a foreign name that has already been transliterated into Cyrillic letters has to be re-transliterated into English letters, the transliterated name should be followed by its original form in square brackets, e.g. Uittinkhem [Whittingham].

TABLE II  
THE RECOMMENDED SYSTEM - ENGLISH - CYRILLIC

English Letters	Languages	Cyrillic Letters	English Letters	Languages	Cyrillic Letters
a	R S B	А а	p	R S B	П п
b	R S B	Б б	r	R S B	Р р
ch	R S B	Ч ч	s	R S B	С с
d	R S B	Д д	sh	R S B	Ш ш
e	R S B	Е е	shch	R	Щ щ
ë	R	Ё ё	sht	B	Щ щ
é	R	Э э	t	R S B	Т т
ê	R B	Ђ ђ	t'	R B	Ђ ть
f	R S B	Ф ф	t'	S	К к
g	R S B	Г г	th	R	Ө ө
i	R S B	И и	ts	R S B	Ц ц
í	R	І і	t-s	R S B	ТС тс
í	R B	ҟ џ	u	R S B	У у
j	S	Ѱ ѡ	u	B	Ђ ъ
j'	S	Ӯ Ӯ	u	B	Ӯ Ӯ
k	R S B	К к	v	R S B	В в
kh	R S B	Х х	y	S	Ј ј
l	R S B	Л л	ý	R	Ы ы
l'	R B	Љ љ	ý	R	Վ վ
l'	S	Љ љ	ya	R B	Я я
m	R S B	М м	yu	R B	Ю ю
n	R S B	Н н	z	R S B	З з
n'	R B	Ҥ Ҥ	zh	R S B	Ж ж
n'	S	Ҥ Ҥ	'	R	Ђ тъ
o	R S B	О о	'	R B	Ь ь

Notes.

The use of l', n' and t' in Russian and Bulgarian (where they are not transliterations of a single letter, but merely l, n or t followed by the soft sign) is included to emphasize the fact that they are used for single letters only in Serbian.

Shch and sht invariably represent the letter ќ in Russian and Bulgarian respectively, since the pairs of letters (ЧЧ in Russian and ѩТ in Bulgarian) seem never to occur consecutively in the respective languages.

TABLE III

## THE SERBO-CROATIAN ALPHABETS

## Latin (Croat) and Cyrillic (Serbian)

Croat	Serbian	Croat	Serbian
A a	А а	Л л	Л л
B b	Б б	Љ љ	Љ љ
C c	Ц ц	М м	М м
Č č	Ч ч	Н н	Н н
Ć č	Ћ ћ	Њ њ	Њ њ
D d	Д д	О о	О о
Dž dž	Џ џ	Р р	Р р
Đ đ (or Dj dj)	Ђ ђ	Р р	Р р
E e	Е е	С с	С с
F f	Ф ф	Ш ш	Ш ш
G g	Г г	Т т	Т т
H h	Х х	У у	У у
I i	И и	В в	В в
J j	Ј ј	З з	З з
K k	К к	Ж ж	Ж ж

The order of letters in the Latin form of Serbo-Croatian is that given above; the order in the Cyrillic form is that given for the Serbian letters in Table I.

### *Amplifications of the Croat Alphabet.*

Russian and/or Bulgarian letters that do not occur in Serbian Cyrillic are  
ё, і, љ, ћ, Ѣ, љ, ѕ, ј, ѩ, њ, ѧ, Ѱ, ѧ, ѧ, ѧ, ѧ.

Transliterations adopted for these in International Systems include:-

Cyrillic	Transliteration	Cyrillic	Transliteration
Ё ё	o, jo or ë	Ђ ђ	ë
Ї ѕ	i or í	Ѡ ѡ	é
Ӣ ѵ	j or ï	Ѡ ю	ju
Ӯ ѵ	šč (Russian) and št (Bulgarian)	Ҧ я	ja
Ӯ ѵ	' or '' (Russian) and ä (Bulgarian)	Ҽ ҽ	f or ֆ
Ӯ ѵ	y	Վ վ	ý or յ
Ӯ ѵ	' or j	Ӯ Ӯ	ա or օ

**DOCUMENT 26/13**

**Letter dated 25th February 1958 from the Royal Society**

(Reference : Document 26/12)

In 1953 the Royal Society and the British Academy drew up a system for the transliteration of Russian, Serbian and Bulgarian and this has been adopted by a number of scientific organizations in this country. At the time of drawing up this system there were, in use in the United Kingdom, a great number of systems of various kinds and it was in order to obtain some standardization among the scientific community that the Royal Society published its scheme.

Recently discussions have been held with the British Standards Institution and these are resulting in the publication by that Institution of a British Standard for the Transliteration of Cyrillic and Greek. This Standard will contain what, in effect, is the first agreed British system for transliteration of Cyrillic. This system is not yet published although it is hoped that it will be within the next two or three months. The transliteration of the Russian alphabet is based upon that of the Royal Society and I enclose a copy of the Royal Society system duly modified. As you will see the modifications concern only two characters. One of these is the hard sign in the Russian and the other is the obsolete letter  $\ominus$  which is not now in current use in Russia.

The Serbian transliteration has been altered to be in accordance with the Royal Society recommendations given in Table III of the pamphlet. When the Royal Society originally promoted its scheme there was a general feeling that a straight latinization of Serbian was to be recommended. However, since 1953 the Serbian alphabet has been more and more written in Yugoslavia in the form recommended in our Table III and in consequence the British Standard is recommending this kind of transliteration in order that confusion may be avoided.

As far as Bulgarian is concerned I am awaiting full details from the British Standards Institution and will let you have these as soon as possible.

**Note by the Secretary to the Commission (intd. F.H. 28th February 1958):**

The enclosure to the Royal Society's letter of 25th February 1958 is not reproduced here because the Tables concerned are identical with those already given in Document 26/12, except for the insertion therein of the following modifications :—

- (a) Table I, letter 36, last column : The single symbol ['] given in the original table has been replaced in the revised table by a double symbol [”].
- (b) Table I, letter 44, last column : The transliteration "th" there suggested has been replaced by the symbol "f̄".
- (c) Table II : This is a Latin alphabet equivalent of Table I and the changes noted under (a) and (b) above have been included in it in the revised version now furnished by the Royal Society.

## DOCUMENT 26/14

Transliteration system for Russian and Bulgarian geographical names  
 prepared by the "Permanent Committee on Geographical  
 Names for British Official Use"

(Communicated by the Permanent Committee)

TABLE 1

TRANSLITERATION OF BULGARIAN GEOGRAPHICAL NAMES

The following system for the transliteration of Bulgarian, devised by the United States Board on Geographic Names (BGN) and published by them in May, 1949, was accepted for British official use by the Committee in September, 1952, and should be referred to as the BGN/PCGN System.

<u>Bulgarian</u>	<u>Transliteration</u>	<u>Bulgarian</u>	<u>Transliteration</u>
А а	a	П п	p
Б б	b	Р р	r
В в	v	С с	s
Г г	g	Т т	t
Д д	d	У у	u
Е е	e	Ф ф	f
Ж ж	zh	Х х	kh
З з	z	Ц ц	ts
И и	i	Ч ч	ch
Й й	y	Ш ш	sh
К к	k	Щ щ	sht
Л л	l	Ђ ђ	ÿ
М м	m	Ђ ђ	' (apostrophe)
Н н	n	Ю ю	yu
О о	o	Я я	ya

In transliteration from sources written in the orthography which was official before February, 1945:

1. Word-final ђ should be omitted in transliteration.
2. The obsolete letter ѕ, now replaced by ђ, should be transliterated by є.
3. The obsolete letter ѕ, replaced in February 1945 by Е or Я according to local pronunciation, should be transliterated by ye, if sources written in the new orthography are not available. Names transliterated with ye resulting from ѕ should be corrected to agree with the new Bulgarian spellings as they become available.

TABLE 2

TABLE FOR THE TRANSLITERATION OF RUSSIAN  
GEOGRAPHICAL NAMES

RUSSIAN	TRANSLITERATION	RUSSIAN	TRANSLITERATION
А а	а	Р р	р
В в	б	С с	с
В в	в	Т т	т
Г г	г	Ү ү	ү
Д д	д	Ф ф	ф
Е е	ye, e <sup>1</sup>	Х х	kh
Ж ж	zh	Ц ц	ts
З з	z	Ч ч	ch
И и	i	Ш ш	sh
Й ий	y	Ш щ	shch
К к	k	҃ ъ	„
Л л	l	҃ ы	у
М м	m	҃ ь	,
Н н	n	҃ ә	ә
О о	o	҃ ю	yu
П п	p	҃ я	я

<sup>1</sup> ye initially, after vowels, and after ъ, ь; e elsewhere; when written as ё in Russian, transliterate as ўе or ё.